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LEGISLATIVE COUNCIL,
FIJI.

Report of the Development Revision Committee

COUNCIL PAPER, No. 29.

THE BACKGROUND TO THE COMMITTEE'S REPORT.

THIS is not the first Development Plan which has been produced in Fiji. The first was prepared by a Committee appointed in May, 1944, which submitted its report in August, 1945. It envisaged an expenditure, over ten years, of £4,517,170¹, and the purposes upon which this sum was to be spent are shown in Appendix D of our present report. The Plan was submitted to the Secretary of State for the Colonies in October, 1945.

2. Two things militated against the speedy adoption of this Plan and, in the event, were responsible for its rejection. The first of these was the character of the Plan itself. The second was the ability of the Colony to sustain expenditure exceeding 4½ million pounds. In practice both of these considerations were so closely inter-related that it is difficult at this distance to say which was the more important, but it is convenient to treat each separately.

3. The first doubts upon the value of the Plan itself were expressed by the Secretary of State in August, 1946. He then noted that many of the proposed items of capital expenditure were not directly productive of revenue: on the contrary, they involved substantial increases in recurrent expenditure. He drew attention, *inter alia*, to the high and disproportionate cost of the Suva Medical Centre (£800,000), and observed that Forestry, Fisheries and Civil Aviation had been neglected. Nevertheless, the Plan was presented to Legislative Council in November, 1946, when it was "generally approved" after a full debate. Early in 1947 Government set about justifying its proposals against the Secretary of State's criticisms; a comprehensive financial statement was sent to him showing revised capital and recurrent expenditure, and residual recurrent expenditure and revenue at the end of ten years. Revised capital costs were then estimated at £4,448,500.

4. As regards the ability of the Colony to finance even a well-grounded Plan, Fiji finished the war with substantial indebtedness to the United Kingdom and New Zealand in respect of advances which had been received from those Governments to finance war expenditure. To the United Kingdom the Colony owed approximately 2½ million pounds and to New Zealand £768,000; a total slightly exceeding three million pounds². Clearly, if Fiji had been required to repay these sums in full, talk of spending a further 4½ million pounds on development would have been merely idle. In the event, however, by a characteristically generous gesture, the United Kingdom, in May, 1948, remitted the whole of the sum owed to her; and in the following October a satisfactory solution was reached with New Zealand under which Fiji undertook to pay, in full and final discharge of its debt, a sum of £50,000 each year for ten years.

5. While negotiations for the settlement of war indebtedness were going on, the Plan was being subjected to further critical analysis by the Secretary of State in the light of the additional information submitted early in 1947 to which we have already referred. In February, 1948, following anxious representations from the Government of Fiji, he pronounced his verdict. Briefly, this was that the Plan should be re-cast in the light of the following considerations:—

- (a) more emphasis should be placed upon projects of a definite economic value;
- (b) it would be unwise to anticipate raising a large development loan upon the London market in view of the difficult conditions through which the United Kingdom was passing;
- (c) it would be quite impracticable to finance any large scale development unless a satisfactory outcome were reached in the matter of war indebtedness.

Leaving war indebtedness on one side for the moment, the Plan had been criticized and rejected because, to use a phrase which has achieved some prominence, it contained "too much welfare and too little development". But the problem of war indebtedness could not be left on one side for more than a moment. Its solution was fundamental to the whole question.

¹ In this report amounts are expressed in Fiji currency (£111 = £100 sterling) unless the context shows otherwise.

² In addition the amount expended by Fiji from revenue for war purposes was £1,562,816.

6. In May, 1948, however, as stated in paragraph 4 above, there came the news that the obstacle of the 2½ million pounds owed to the United Kingdom had been removed. "Development" thereupon again became a practical issue; and the present committee was appointed to consider it.

7. During these three years, the Government of the Colony had not been content, nor would public opinion have allowed it to be content, to wait upon final approval of a full Plan before making any move. In June, 1947, application was made for grants under the Colonial Development and Welfare Act for certain projects which had been included in the Plan or which were regarded as especially urgent. These concerned the Queen Victoria School, the Suva Medical Centre, the Central Wireless Receiving Station, the Teachers' Training College at Nasinu and the Tuberculosis Sanatorium at Tamavua. Unfortunately it transpired that two of these projects were ineligible for a grant since the Imperial Treasury had ruled that no grant could be made for a scheme on which work had already started; and expenditure of some £36,000 had by then been incurred on the Teachers' Training College and of some £68,000 on the Tuberculosis Sanatorium. These projects were therefore completed from Colonial funds³. Applications for grants for the Suva Medical Centre and the Queen Victoria School were, however, renewed and these were finally approved in April 1948, and March, 1949, in amounts of £186,702 and £100,000 respectively.

8. As already indicated, expenditure had been incurred on a number of items which were included in the Plan in anticipation of its approval. The items so selected were shown in a schedule which was printed as an appendix to the Colony's Annual Estimates for each of the years 1945 to 1948, and the expenditure incurred upon them was debited to an Advance Account. By the end of 1948 expenditure on this account amounted to £498,435⁴. When it became obvious that the original Plan required drastic revision it was necessary to clear this Advance Account, and this was done by charging the whole of this sum against the Colony's Reserve Funds. In considering the revised plan which we now present it must therefore be realized that the Colony has already spent since 1945 nearly half a million pounds from accumulated funds on various development schemes, in addition to expenditure included in the normal "Public Works Extraordinary" Vote of the annual Budget.

SOME GENERAL CONSIDERATIONS.

9. In the immediate post-war years, Colonial Development has been a widely discussed topic about which an extensive literature of its own has been speedily created. We have therefore had the benefit of being able to consider varied expressions of opinion, and we have been able to approach our task with a clearer definition than was vouchsafed to our predecessors of the United Kingdom Government's conception of development. In addition, we have been able to relate Colonial needs and possibilities to the difficult period the Commonwealth is now enduring, which in many respects is so different from that which it was hoped victory would bring in its train. It is, however, necessary to devote some space to considering what is meant by this word "development". So far as Fiji is concerned, it cannot mean that the country is undeveloped now; for that would be to deny the evidence of one's eyes and the known facts of history. In the 75 years of its existence as a British Crown Colony, Fiji has advanced from the rule of the club to the rule of law. Roads—900 miles of them—exist where none existed before; 19 hospitals providing 1,009 beds, employing 14 doctors and 26 assistant medical practitioners, 131 nurses and 150 nurses-in-training, make a vital contribution to the people's health. Business houses, recognizable as such by any standards, are numerous. Overseas trade has been built up to a total of £13,000,000 per annum, and it is handled across wharves which are equipped to deal with it. Education is provided in 433 schools for 48,000 children. The population has increased to nearly 280,000 persons. Briefly, although it is outside the personal experience of any one of us, we think that the state of the country now is very different from what it was in 1874, and the extent of this difference is the measure of the development which has already taken place. It is not inconsiderable.

10. Nor can "development" mean that the recommendations of this Committee, if they are carried out, will transform the face of the country and make it into a tolerable likeness of New Zealand or Australia with good houses for many, electricity for most and social security for all. We have therefore assumed that our task as development planners is to state the directions in which we would spend three or four million pounds if we had three or four million pounds to spend. Since the Colony is already spending approximately three million pounds annually we are in fact proposing that 11 or 12 years' expenditure should be compressed into 10. Expressed in this way, the word "development" may perhaps be viewed in its true perspective by those who expect our recommendations to work miracles: thus they may be spared the anguish of frustrated hopes.

11. We have been very conscious, at all stages of our deliberations, of the striking disparity between available means and desirable ends. Given unlimited financial means we could readily have recommended expenditure very much greater than the four millions proposed. And we do not doubt that the ends to which this much greater sum would have been devoted would not have seemed odd to most metropolitan critics of Colonial affairs. At Appendix E of our report we therefore give a list of some of the schemes which had a good case for inclusion in the Development Plan, but which have regrettably been excluded because means are insufficient. Of necessity we have tried to shape our Plan with due regard to the need to spend money in the ways which will give the greatest social return and the greatest impetus to future economic development.

³ i.e. expenditure on them was debited to the Advance Account described in paragraph 8.

⁴ The principal items in this expenditure were:—Improvements to Lautoka Hospital, £29,000; Tamavua Hospital, £68,000; Nasinu Training College, £36,500; Country Markets, £24,000; Official Quarters, £105,000; Nausori Police Station, £16,500; Southern District Headquarters, £5,500; Rewa Water Supply (part), £42,500; Other Water Supplies, £9,500; Lodonu-Qoma Road, £25,500; Surfacing of Roads, £25,500; Census, £9,500. (Figures given to the nearest £500.)

12. Thus we have recognized the need to open up new lands by building roads, and, in order that the roads may be built to places which are likely to prove fruitful, we have made provision for a soil survey and an aerial survey. We recognize the need to provide cheap and abundant electrical power. In order that Fiji shall retain her position as a focal point in the network of Pacific communications, we believe it is proper to contribute a large sum of money towards an international airport. With this object still in view, and recognizing the need to provide port facilities to handle what we hope will be a growing volume of produce, we propose to spend largely in the Suva port area and to create a new port at Lautoka. In our consciousness that Fiji's wealth lies primarily in agriculture we consider that expenditure on scientific agricultural research is money well spent. To this end we have made provision for agricultural stations, the production of grass seed, the development of forests, and certain specialized activities concerned with soil conservation and biochemical and botanical investigations. We have also made provision for a start to be made in creating facilities for agricultural and industrial credit. We have not neglected the social services, as witness our proposals to spend a quarter of our available means on them; but we recognize that our ability to do more depends upon our hopes of the efficacy of our economic "pump priming" being realized. Elsewhere in this report we give a more detailed description of our proposals.

THE MEANS.

13. We propose that 4½ million pounds should be spent, and we believe that this sum may be raised as follows:—

	£	£
1. Allocation to Fiji under the Colonial Development and Welfare Act 1945	1,110,000	
Less Expenditure on Mosquito Control measures and on T.B. Survey between 1946 and 1948.. .. .	31,692	
		1,078,308
2. Grants for Research and Survey Schemes from the central allocation under the 1945 Act .. .. .	....	85,002
3. Loan Funds .. .. .	....	2,000,000
4. Annual Appropriation from Revenue at £50,000 a year from 1950 to 1958 .. .. .	....	450,000
5. Appropriation from Surplus Balances .. .. .	....	636,690
		<u>£4,250,000</u>

14. *Item 1.*—The allocation to Fiji was £1,000,000 sterling or £1,110,000. All expenditure on approved grants between 1st April, 1946 (the effective date of the 1945 Act) and the 31st December, 1948, has been deducted. Expenditure from 1st January, 1949 on approved grants is included in the revised Plan.

15. *Item 2.*—This is almost a self-balancing item and is based on the following estimates:—

(a) Establishment and Maintenance of a Central Medical Research Library (Scheme No. R.287 approved)	£4,051
(b) Geological Survey (Scheme No. D. 1014 approved)	24,642
(c) Linguistic Research (Scheme No. R. 206 approved)	2,000
(d) Establishment and Maintenance of an Educational Research Institute (Application submitted)	23,329
(e) Preliminary Investigations concerned with anæmias and the distribution of dental disease (Scheme No. R. 353 approved).	480
(f) Biochemical, botanical and plant disease investigations (Application submitted)	30,500
	<u>£85,002</u>

16. Approval in principle was given in 1948 to (d) but estimates for the scheme have been revised and a new grant application has been made; the Secretary of State suggested that the institute should also undertake sociological research and this may be possible at a later stage. As regards (e), the original estimates for a full investigation of the ætiology of anæmias and other morbid conditions of doubtful origin in Fiji was £9,655 and a full investigation into the distribution of dental disease and its relationship to diet in Fiji was estimated to cost £4,885. The preliminary investigation of both problems by a specialist officer, which is now recommended, may reveal the need for a reversion to the original proposals; if such is the case these items in the development budget will be supplemented.

17. *Item 3.*—It is proposed periodically to raise development loans totalling approximately £2,000,000, which might be distributed as follows:—

£500,000 from local subscription to a conventional registered stock, ranking as trustee security, and carrying an interest rate of say 3½ per cent.

£250,000 from local subscription to bearer bonds⁵, free of income tax, and carrying a rate of say 2½ per cent.

£1,250,000 from an overseas loan.

⁵ We realize that an issue of bearer bonds would not be possible under present exchange difficulties.

18. The prospects for an internal loan are good provided its conditions are correctly related to local demand. The 1946 3½ per cent redemption loan is generally regarded as a failure; but the fact remains that the bonds are now more or less unpurchaseable or, more correctly, purchasable at some unknown premium. By this criterion it was anything but a failure. This seems to indicate that there is a fair demand for Government securities *to hold* at some rate of interest between 3 per cent and 4 per cent. Moreover, the amount of currency issued is considerably in excess of the circulation needs of the country. It is evident, therefore, that currency notes are hoarded in large numbers, which means that there is a number of people who, in effect, are lending money to Government free of interest.

19. The Committee considers that a loan should be divided into two sections:—

(a) Registered stock ranking as trustee security of the conventional pattern, carrying an interest rate of say 3½ per cent. This is the rate at which the Governments of the neighbouring Dominions are raising money. The Government of Fiji cannot offer less if it expects to attract local investors, who are quite free to invest elsewhere in the sterling area.

(b) Bearer stock, free of income tax, carrying a rate of interest of perhaps 2½ per cent. We consider that £500,000 might be raised by the 3½ per cent stock, provided Government takes advantage of its legal powers to invest some of its Trust Funds in local Government Securities, e.g. the Government Savings Bank has hitherto made no use of its legal powers to invest up to one-third of its deposits locally. Of the 2½ per cent stock we think that £250,000 worth might be sold to local investors.

20. In the case of either issue, no single flotation should be attempted, but stock should be purchaseable every quarter. The money will be spent gradually and therefore it should suit Government to receive the money gradually. Certainly far more money could be raised locally by a gradual process of this sort than by a single flotation.

21. The balance of any loan moneys required would have to be raised in the normal fashion on the overseas market through the Crown Agents on such terms as the market would require.

22. *Item 4.*—A contribution from revenue of £50,000 for each of the nine years, 1950 to 1958, should be made to support the development plan.

23. *Item 5.*—At the end of 1948 surplus balances were £2,068,154. It is advisable that they should not be substantially reduced below a figure of £1,500,000 which is approximately half the Colony's ordinary annual revenue. It is therefore proposed to appropriate a sum of £636,690 for development purposes⁶: if a surplus should be realised in 1949 we consider that the greater part of it should be added to this figure and borrowing reduced by an equivalent amount.

24. Apart from the need to keep a working balance for recurrent Government expenditure, the object of maintaining comparatively large surplus balances (which of course should be profitably invested) is to ensure that Government has the means freely available to provide employment in times of economic depression. It may appear strange for the Colony to borrow money with one hand and invest money with the other but in times of real depression it would be a bold Colonial Government which would borrow say £1,000,000 for a large works programme. It would be quite another matter to spend £1,000,000 which had been specifically accumulated for just such a purpose.

THE ENDS.

25. A fuller description of our individual proposals will be found at Appendices A, B and C and in the following paragraphs we do no more than attempt to paint a general picture of what we propose. At our first meeting the Committee was divided into three sub-committees to consider and report on schemes coming under the main headings of:—

- A.—Production and Development of Natural Resources ;
- B.—Social Services; and
- C.—Communications and General.

Some difficulty was experienced in defining what was precisely the province of each Committee; obviously their three subjects over-lapped to some extent. But by using these three broad descriptions the Committee conformed with those used by the United Kingdom Government in classifying Development in other Colonies and comparison was thereby facilitated⁷. As a rough guide, each sub-committee was allocated a proportion of total expenditure within which it should try to keep. Thus to Sub-Committee A 40 per cent was allocated, to Sub-Committee B 25 per cent and to Sub-Committee C 30 per cent; leaving a reserve of 5 per cent. As our work progressed it was necessary to alter these proportions, and the final result is as follows:—

⁶ It should perhaps be reiterated that a sum of £498,435 has already been charged off against surplus balances (see paragraph 8 above).

⁷ By June 1949, the Development Plans of twenty-one Colonies had been approved with a total expenditure of nearly £200 million (sterling), of which £84 million was to be provided from allocations made under the Colonial Development and Welfare Act. The expenditure may be analysed as follows:—

	Amount.	Percentage.
ECONOMIC—(Agricultural, Veterinary, Fisheries, Forestry, Irrigation, Drainage, Land Settlement, Soil Conservation, Electricity and Power, and Industrial Development)	£40.8 million	20.5
SOCIAL SERVICES—(Medical and Health, Housing, Town Development, Water Supplies, Sanitation, Broadcasting and Welfare)	£85.2 million	42.6
COMMUNICATIONS—(Civil Aviation, Ports and Harbours, Water Transport, Railways, Roads, Tele-communications and Posts)	£34.1 million	17.1
MISCELLANEOUS	£28.5 million	14.3
ADMINISTRATION, ORGANIZATION, PHYSICAL PLANNING, SURVEY AND CENSUS	£10.8 million	5.5

	Amount.	Percentage of Total.	Percentage in 1945 Plan.
Production and Development of Natural Resources (economic schemes)	£1,531,942	36.05	12
Social Services	1,077,507	25.35	59
Communications and General ..	1,455,490	34.25	29
Reserve	185,061	4.35	..
	£4,250,000	100 per cent	100 per cent

26. *Economic Schemes.*—The Colony's economy is almost wholly based upon agriculture; and it is natural that we should attempt to seek development along agricultural lines. To this end, as will be seen from Appendix A, we have made plentiful provision for useful forms of agricultural research, and the schemes we propose are for the most part sufficiently described by their titles. Fiji is a country which shares with many others the problem of supporting a steadily growing population upon a land area which is at best static, and at worst decreasing, owing to soil erosion and the depletion of natural fertility. If it is to sustain reasonable standards of living amongst its growing population, Fiji must take steps to combat soil erosion and pay particular attention to the necessity for increasing yields by improving the standards of husbandry.

27. The two main crops of the Colony are sugar and copra; and it may seem odd that we have paid little immediate attention to either. The omission, however, has been deliberate. The sugar industry is well organized by the Colonial Sugar Refining Company⁸, which sets a high standard in the cultivation of cane and has consistently devoted expert attention both to the production of varieties of cane particularly suited to the climate and to the maintenance of fertility in its lands. The Company employs a large staff of agricultural experts and chemists, and we feel that the technical future of this industry may safely be left in its competent hands. As regards copra, the industry is now receiving a high return for its product under a nine-year agreement with the Ministry of Food⁹. If an assured return and economic stability are as important for the proper development of an industry as we believe them to be, this particular industry is in no great need of further assistance beyond that which can be provided in the normal course of its activities by the Department of Agriculture. It will be noted, however, that we make substantial provision for feeder roads, and we contemplate that a considerable proportion of this money will be spent in providing roads which will run through copra producing areas. To this extent the industry will benefit directly from our proposals and it will also benefit from the schemes for livestock development, grassland improvement and soil survey.

28. The total expenditure on economic schemes is approximately £1,500,000; it will be noted that three schemes alone account for just over one million pounds of this total. On feeder roads we recommend that £445,000 should be spent. To the Navua River Hydro Electric Scheme¹⁰ we contemplate a contribution of £566,000 and we have provided £150,000 for agricultural and industrial credit. We deal at rather more length with these three projects in the immediately succeeding paragraphs.

29. The main island of Viti Levu has a circum-insular road, but little else in the way of roads: in the other islands the road system is even more sketchy. We do not believe, contrary to some opinions, that the interior of the two main islands will be found, when they are opened up, to be lands flowing with milk and honey; but we do believe that there are considerable areas which would support production if they were made accessible. To some extent the problem is bound up with the Government's land policy. The land for the most part belongs to the Fijian; and for the past few years the alienation of land has been suspended whilst the Native Lands Commission has been deciding what areas should be reserved for the native owners for their own use. In some parts of the Colony the work of the Commission has been completed and native reserves are about to be proclaimed. This will mean that areas outside the reserves can be made available for settlement. We hope, however, that it will not be only those areas which will contribute to the general increase of production which we are anxious to see. Even the best intentions of Government, determined not to abrogate in any way the promise given to the indigenous Fijian at the time of Cession, will not suffice in the long run to protect the Fijian against losing his land unless he learns to make full economic use of it. It is our earnest hope, therefore, that it will be found as necessary to make roads to the Native reserves as to the lands outside them; and that from both areas an increasing volume of produce will flow along the new roads towards the main centres of consumption. To have such hopes, however, is not sufficient. We do not recommend that large sums of money should be spent in driving roads to areas which will be found unsuitable for production. To obviate this danger, we place considerable importance upon the aerial survey and the soil survey of the Colony. To our minds, to justify building a feeder road, three conditions must be satisfied. First, the land which will be opened up must be reasonably fertile; second, it must be available for settlement; and third, if the area is not one in which new settlement can be expected, it must be one in which it is clear that an expansion of output will take place from the efforts of the people already on the land.

⁸ See paragraphs 13 and 14 of Professor Shepherd's report on the Sugar Industry, 1945.

⁹ The price of copra was determined at £48 sterling in 1949 and will be re-negotiated each year subject to a maximum variation of ten per cent upwards or downwards from the price of the previous year.

¹⁰ This scheme is one which has been submitted to the Colonial Development Corporation from which it has received favourable consideration. The Corporation is proposing that an 180 feet dam shall be built on the Navua River to provide installed capacity of 18,000 k.w. by 1956. The total cost of the scheme is estimated at £2,264,000 of which the Government of Fiji is expected to contribute 25 per cent.

30. The Navua River Hydro Electric Scheme has been fully described elsewhere and has been, and is being, subjected to much expert technical investigation. In a nut shell, the scheme will provide plentiful electric power throughout the South-Eastern portion of Viti Levu wherein lies the bulk of the Colony's urban population. When it is completed, it will liberate the housewife from the tyranny of the wood stove and the oil lantern, and it will provide a source of power which is cheaper, cleaner and more abundant than that upon which the bulk of the people now rely. For these reasons alone we believe that the project is worth undertaking; but in addition, and much more important, it will provide power which will improve the competitive efficiency of our existing industries and give an opportunity for new ones to be established. Ideally, for the establishment of industries, one should find ready at hand three necessary ingredients—labour, raw materials and power. Fiji, with its rapidly increasing Indian population with a natural aptitude for manipulative tasks, will have no difficulty in providing labour. We hope the Navua Dam will provide the power. Whether the Colony possesses raw material of commercial value will be apparent when the results of the geological survey are known. Even if these results should prove disappointing, we are confident that there will be no difficulty in disposing of the output of the Navua Dam at a profit; but naturally the further extensions which we would hope to see made may not prove possible.

31. But for the future development of this Colony we do not repose all our hopes in the activities of large corporations. The peasant producer is, and we hope will always remain, an important factor in the economy of the Colony. He will, however, need assistance, and this assistance cannot be confined merely to the giving of technical advice and ocular demonstrations of the way it should be done. If he is to adopt the improved methods which are urged upon him, if he is to be kept out of the hands of usurers who will extort, with traditional viciousness, the last penny of interest from him, the labour of himself and his family must be associated with more capital; we have provided £150,000 to make a start in this direction. There are difficulties in the way of establishing a satisfactory system for making this capital assistance available and at the time of writing our report we have not yet decided how these difficulties may best be overcome. But we are convinced that they must be overcome and that further study of the problem will show a way. We feel, however, that it would be unrealistic to contemplate development in an agricultural country with a preponderantly peasant population without making some provision for satisfying this self-evident need.

32. *Social Service Schemes.*—A full list of these schemes is given at Appendix B. None of them should excite surprise, and few of them warrant special mention. The expenditure of £186,702 on the Suva Medical Centre is intended to produce a modified version of the Centre proposed in the 1945 Plan at a cost of £800,000. The tuberculosis survey is the expenditure counterpart of an already approved Colonial Development and Welfare grant¹¹; and the expenditure of £20,000 on further anti-tuberculosis work provides for Government's contribution to the War Memorial Appeal Fund to which it has promised to contribute pound for pound up to a maximum of £20,000¹². Makogai Leprosy Colony will receive nearly £30,000 and new staff quarters and laundry extensions are urgently necessary at the Colonial War Memorial Hospital.

33. On the educational side, mention has already been made of the Queen Victoria School. Most of the remaining items make provision for new schools or for extensions to existing schools. It is indeed natural that a Colony should endeavour to improve its educational facilities. Our task has been not to think of worthwhile schemes, but to prevent our natural sympathies from out-stripping our appreciation of the inescapable relationship between available means and desirable ends. We cannot, however, agree that expenditure on social services, as they are termed, must necessarily be regarded as uneconomic. A country cannot be economically healthy if its people are physically unfit. It cannot achieve maximum output if its workers are unable to contribute sustained and energetic work because of ill health or recurring sickness. Similarly a country cannot progress if its inhabitants are illiterate and unskilled. Nevertheless, there are limits to what can be achieved at any given stage of material progress; and an expression of this realization is found in the provision of £58,000 for a Building Pool, which is a frank admission that Government cannot do more than contribute towards the cost of providing full educational facilities.

34. Elsewhere in the list will be found substantial provision for various water supplies. The need for pure water supplies in a tropical country is self-evident. In particular, the Suva Water Supply has recently been found to be contaminated in a way which could easily become dangerous and, in order to improve it, it will be necessary to instal a filtration plant. In the case of this water supply as with all others, we consider that they should be made to be self-supporting; and we are confident that this can be done without raising water rates, which are now low, to exorbitant levels.

35. *Communications and General.*—The total recommended expenditure under this heading is nearly 1½ million pounds, of which the most impressive single item is a contribution of £340,000 to the International Airport at Suva Point. It is with considerable diffidence that we propose this expenditure. In a small Colony with pressing needs in every direction, and with a population which for the most part is not likely to be interested in the personal convenience of air travel for many years to come, we feel that trunk airports are of limited utility. We have, however, been forced to the conclusion that this is a proper investment by recalling the horrid example of those small English towns which a hundred years ago opposed the close approach of the iron horse, and by reflecting further that what Fiji is called upon to pay is only one-sixth of the total cost of an irremovable asset, which will always be useful for regional and local services. Whatever the ultimate verdict of posterity may be, we are convinced at this stage that Fiji stands to lose nothing, and may gain much, from an international airport. It is at all events worth taking a chance.

¹¹ Scheme D. 284.

¹² See the report of the War Memorial Committee, Council Paper No. 13 of 1949.

36. Roads again loom large with £125,000 for new ones and £140,000 for surfacing existing ones. It is difficult to disentangle clearly the communication roads which we have in mind in this section from the feeder roads for which we made provision under the economic schemes. Briefly, we regard a communication road as one which provides a means of transit between two centres of population; whereas a feeder road is one which is built solely to open up a new area. In a sense, one will be a through road and the other a cul-de-sac; but it is obvious that there will be numerous occasions when it will be difficult to decide whether a road is one or the other. In practice, the money provided for the two purposes should be treated as one sum; and we have shown the provision separately merely to emphasize that road construction has a dual aspect. For the most part we do not consider that much attention should be paid to surfacing roads. At this stage of Fiji's development, mileage is more important than surface; and so long as the surface of a road is sufficient to allow traffic to use it in most states of the weather, it is not vital whether a truck goes from A to B in three hours or five. There are, however, certain sections where the density of traffic is already so great that the maintenance of a loosely metalled road becomes extremely expensive. We consider it would be an economy to tar-seal these stretches in order to reduce the annual cost of maintenance. The only sections of road which in our opinion warrant this treatment are those from Suva to Nausori, from Tavua to Lautoka, and within Township areas.

37. The facilities at Suva Wharf have remained in their present state for many years; and it reflects credit on those concerned in the administration of the port, as well as the shipping and stevedoring companies concerned, that it has been found possible to handle a volume of traffic which is considerably in excess of that for which the port was originally designed. The expenditure of £150,000 on improvements was recommended by the Port Improvements Committee and we concur in its findings¹³. The only other major port work which we feel to be necessary is the provision of a new wharf at Lautoka for the reasons contained in paragraphs 84 to 87 inclusive of the 1945 Plan.

38. The Fiji Islands depend upon the sea as their main highway; and despite the programme of road construction which we have recommended it is likely that sea transport will retain its importance. The present main slipway is old, requires considerable maintenance each year and is limited to ships not exceeding 500 tons. Despite patient endeavours to patch it, it is literally on its last legs. Without it the sea-going commerce of the Colony would be crippled. Plans have been drawn up for its replacement by a structure designed to carry a ship of 1,000 tons and we strongly urge that this project be pushed forward with all available speed. When the new slipway is constructed we consider that the demand for its services both from Fiji and neighbouring territories will be such that there should be no difficulty in making the revenue from it meet the full capital cost of its construction and the annual cost of its maintenance and operation.

39. The telephone exchange at Suva is a manual exchange of antiquated design which is severely overloaded. That it should be replaced in order to meet the demand for telephones from an impatient public, which has long been denied the satisfaction of its full requirements, is self-evident. The only question which we found it difficult to resolve was whether the new exchange should be an automatic one, for which plans have already been drawn up, or a new manual one. In the event, after taking expert opinion, we have agreed that an automatic telephone exchange should be installed. We are confident that it can be made to pay. Provision is also made for rural telephone systems.

40. Finally, amongst the major schemes of this part of our report, we draw attention to the £75,490 provided for engineering surveys and plant. If any progress is to be made with all the schemes which we have recommended, it is apparent that the normal resources of the Public Works Department must be augmented by having recourse to outside consultants and firms, and it is equally apparent that a considerable amount of plant will have to be assembled to do the work. In a Plan of this size it is essential, if waste is to be avoided, that work should be properly planned, efficiently supervised and done by tools suitable for the work.

41. *Reserve.*—At the time of writing this report a number of schemes are still being worked out which may require capital. A reserve of £185,061 is therefore set aside to cover requirements when they come to light and also to supplement the recommended schemes if costs call for upward revision. It will also be possible to use the reserve for schemes which have not been included in our Plan but which may demand urgent attention in years to come.

THE PROGRAMME AND THE TECHNIQUE.

42. Tentatively we envisage the implementation of this Plan over a period of ten years beginning in 1949 and finishing in 1958. We are aware that the operation of the Colonial Development and Welfare Act is planned to cease in 1956, and that thereafter Fiji cannot expect to receive assistance from that source. We do not think it is possible however to contemplate the completion of the programme we have proposed in less than ten years; nor do we think it is desirable. Moreover we do not see any reason why, although welded into one plan, expenditure from local funds and from Colonial Development and Welfare funds should necessarily be co-terminous. We therefore propose that those schemes which are to be financed, wholly or in part, from United Kingdom funds should be completed by 1956; and that the remainder, financed wholly from territory funds, should be completed as and when opportunity offers within the broad limit of ten years.

¹³ Council Paper No. 8 of 1948.

43. We attach considerable importance to the timing of these works; for we regard the timing of a Development Plan as no less important than its character. At the moment capital equipment, materials and supervisory staff are all scarce and prices are high. Moreover, many private enterprises in the Colony have ambitious plans for expansion. It is not desirable that Government should compete on a large scale with private enterprise for scarce supplies and swell the already inflated condition of the Colony by embarking on large-scale public works if they can safely be postponed. Ideally, expenditure of this kind should be held in reserve until prices are lower, when better value for money will be secured and when large scale public enterprise will serve to take up the slack caused by a recession of private activity¹⁴.

44. We recognize, however, that what we have enunciated in the previous paragraph is in reality a policy of perfection which it will be impossible to attain in practice. We recognize further that many of the projects we have in mind cannot be postponed and that others (such as roads and power) are essential prerequisites to that expansion of private activity which we desire to see and upon which we believe the future development of this Colony must largely depend. Nevertheless it is important that these considerations of timing be borne in mind wherever possible.

45. As regards the financial administration of our Plan, we consider that the funds derived from the sources mentioned in paragraph 13 should be concentrated into a Development Fund. The normal practice of Colonial Finance of treating each year as a separate accounting unit will not serve our requirements. The calendar year has no virtue beyond that of being a convenient unit for measuring the passage of time and whilst it is essential to retain this system for normal purposes it is not possible to adapt it to suit the needs of a capital programme where the most important unit of measurement is not that of time but of the progress of the work. Expenditure from this Development Fund would be made in accordance with the availability of supplies and the urgency of each particular work (having regard to timing) and would be shown in a development budget which would be presented annually at the same time as the Colony's ordinary budget.

46. It will be observed that we have not attempted to be rigidly precise in our estimates. To do so would be to give a false impression of possessing knowledge which we believe no body of men attempting a task such as ours can possess. We cannot say what the price of steel, cement or timber will be in five years; we do not know whether satisfactory supervising engineers can be obtained for £1,000 per annum, or more, or less; the cost of casual labour may rise or it may fall; we cannot say whether a feeder road will cost £2,000 a mile or £3,000; that will depend upon the character of the country through which it is driven as well as upon other factors. What we have attempted to do is to indicate the broad directions which we think planning should take. We have already said that we think it would be misleading to attempt to be more precise and we can add to this that we think it would be unwise also. We have been considerably impressed by reading the report of the Colonial Service African Conference held at Cambridge in 1948 and particularly with those sections of the report which relate to finance. We observe with keen interest that the Secretary of State for the Colonies has endorsed this Conference's views and has urged Colonial Governments to give practical effect to them; the Secretary of State has further suggested that a corollary of such adoption is that "some review of ten-year development programmes may be needed". Having as yet no approved Development Plan, Fiji is happily spared this necessity, so that it would appear that the fruits of delay have not been entirely evil. We wholeheartedly endorse the idea that the precise detail of many schemes should be determined in consultation with local committees; it is in fact in this way that we contemplate spending the money we think should be provided for roads; and we consider that local roading committees should be established to consider, in the light of all available knowledge and the best possible advice, what roads should be built. The thing which is fundamental in our opinion is that funds should be provided for certain broad purposes and, having reviewed all the evidence placed before us, we have endeavoured to indicate what we think those broad purposes should be. It may be that, were we writing this report five years hence, our opinions would show some change; and we have no objection in principle to seeing our recommendations changed for us if in five years time the administering authority considers that circumstances warrant it. The priority which will be allocated to certain works, the expenditure which will be incurred upon them, the exclusion of some and the inclusion of others will, we hope, be clearly brought out in the annual Development Budget and fully debated year by year in Legislative Council.

¹⁴ The following extract from the minutes of the fourth meeting of the Committee sets forth these considerations in rather more detail:—

"In proposing this motion Mr. Snell mentioned particularly—

- (i) the lack of unskilled, semi-skilled and skilled labour in the Colony and the fact that the manpower which existed was strained to the utmost on maintenance and development works now in hand;
- (ii) the fact that good supervision was essential and that it was extremely difficult to obtain trained technical staff from overseas;
- (iii) the desirability of avoiding further taxation which might prejudice present incentives to work;
- (iv) the scarcity and high cost of construction materials.

The above difficulties might eventually be lessened—

- (i) by the natural increase in population;
 - (ii) by the intensive training now being given in overseas universities to large numbers of young men;
 - (iii) by an increased return from taxation at existing levels;
 - (iv) by the gradual improvement of overseas supplies accompanied by falling prices,
- but these points were arguments in favour of a judicious spacing out or timing of the proposed development programme."

L. BRIAN FREESTON, Governor.
R. M. TAYLOR, Financial Secretary.
PAT COSTELLO, Member of Executive Council.
A. D. PATEL, Member of Executive and Legislative Councils.
J. M. CRUIKSHANK, Director of Medical Services.
C. HARVEY, Director of Agriculture.
HOWARD HAYDEN, Director of Education.
H. S. ROE, Acting Director of Public Works.
A. A. RAGG, Member of Legislative Council.
E. T. CAKOBAU, Member of Legislative Council.
JOELI K. RAVAI, Member of Legislative Council.
V. DEO, Member of Legislative Council.
H. E. SNELL.
W. GATWARD.
P. H. NIGHTINGALE, Administrative Officer (Member and Secretary).

7th November, 1949.

NOTE.—Hon. S. H. Wilson, Member of Legislative Council, was unable to sign the Report owing to illness. He proposed to submit a minority report and this is to be printed separately.

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APPENDIX A.

SCHEMES RELATING TO PRODUCTION AND TO THE DEVELOPMENT OF NATURAL RESOURCES.

AGRICULTURAL AND FORESTRY SERVICES.

A. 1—Agricultural Station, Southern	£76,850
A. 2—Agricultural Station, Sigatoka	13,050
A. 3—Agricultural Station, Northern	2,500
A. 4—District Farms	8,000
A. 5—Farm Institute.. .. .	5,250
A. 6—Fruit Export Sheds	10,000
A. 7—Forestry Development	26,700
A. 8—Fisheries Development	5,500

LAND DEVELOPMENT.

A. 9—Aerial Survey	£50,000
A. 10—Soil Survey	5,000
A. 11—Geological Survey	24,642
A. 12—Navua Drainage Project	12,000
A. 13—Sereva Fijian Settlement Scheme	20,000
A. 14—Nadi Soil Conservation Scheme	19,450
A. 15—Feeder Roads	445,000

INDUSTRIAL AND GENERAL DEVELOPMENT.

A. 16—Country Markets	£12,500
A. 17—Central Slaughter Yards, Suva	33,000
A. 18—Lime and Coral Sand Investigations	2,500
A. 19—Production of Grass Seed	5,000
A. 20—Navua River Hydro-Electric Scheme (contribution)	566,000
A. 21—Agricultural and Industrial Credit	150,000

£1,492,942

RESEARCH.

AR. 1—Biochemical investigations concerned with animal nutrition in Fiji	£12,500
AR. 2—Botanical investigations in Fiji and Western Pacific	14,000
AR. 3—Investigations concerned with the nature and control of plant diseases in Fiji	12,500

£1,531,942

or 36.05 per cent of £4,250,000

DESCRIPTION OF SCHEMES.

A. 1—AGRICULTURAL STATION, SOUTHERN—£76,850.

Land at Koronivia, eleven miles from Suva, was purchased in 1948 at a cost of about £17,000. From 1949 onwards expenditure is estimated as follows:—

Office and Laboratories	£12,500
Farm Buildings	7,000
Quarters and Hostel	35,800
Power and Water	3,000
Cold Storage and Equipment	500
Farm and Laboratory Equipment	8,000
Fencing, Clearing and Drainage	4,000
Propagators and Nursery	800
Access and Farm Roads	1,750
Purchase of Livestock	3,000
Telephones	500
	£76,850

The station, which will eventually cover 380 acres, includes both flat and hilly land and contains the principal soil types of the wet zone. It will therefore be possible to experiment in and demonstrate cultivation methods most suitable for the wet zone areas. It will also be possible to provide demonstration facilities for the students at the Nasinu Teachers' Training College.

A. 2—AGRICULTURAL STATION, SIGATOKA—£13,050.

It was originally suggested that a station be established on the western side of Viti Levu near Lautoka but it has not been possible to find an entirely suitable site, and building and fencing material and other equipment will not be freely available for some years. It is therefore proposed to use the existing farm at Nacocolevu, Sigatoka, as a dry zone station for the next ten years at least; the farm now covers 218 acres. It is partly fenced and developed and contains some farm buildings and quarters. Estimated expenditure is as follows:—

Farm Buildings	£1,000
Power and Water	500
Farm and Laboratory Equipment	1,000
Fencing, Clearing and Drainage	1,500
Access and Farm Roads	250
Purchase of Livestock	3,000
Telephones	800
Quarters and Hostel	5,000
	£13,050

A. 3—AGRICULTURAL STATION, NORTHERN—£2,500.

Small demonstration farms at Labasa and in the wet zone of Vanua Levu will eventually be necessary but for some time available agricultural staff will have to be concentrated on extension work particularly amongst rice and copra producers. Provision of £2,500 is however made for a station in the Northern District as soon as its establishment becomes possible.

A. 4—DISTRICT FARMS—£8,000

This provision is intended to cover the cost (£5,000) of two farms, one in Western Viti Levu and one in the Northern District. £3,000 is provided for quarters.

A. 5—FARM INSTITUTE—£5,250.

In the Statement of Agricultural Policy approved by Legislative Council in 1946 the early development at the principal agricultural station of a Farm Institute was recommended. A small hostel will be provided at the station for the accommodation of students together with a demonstration and common room:—

Dormitories	£1,848
Kitchen and Dining Room	780
Ablution and Lavatory Block	150
Demonstration Room	1,155
Quarters for Instructor	650
Water and Site Preparation	125
Equipment and Incidentals	542
	£5,250

A. 6—FRUIT EXPORT SHEDS—£10,000.

The amount of produce now handled in the fruit export shed on Suva Wharf strains to the utmost the present handling and storage facilities. There are also no facilities for off-loading fruit from river punts and inter-island vessels. The rails, trucks and roller conveyers now used have been in commission for over 12 years without replacement or adequate repairs. Improvements are essential but the need will be accentuated when the new fruit-carrying vessel commences on the New Zealand-Islands run in 1951.

It is proposed to extend the fruit shed, to improve ventilation, to construct overhead storage space in the form of lofts, to repair existing lines and trucks and to purchase additional equipment:—

Buildings—

Building Extensions	£5,000
Improvements to Fumigation Rooms	1,660
Overhead Storage Space	350
Flyproof Screening and Ventilation	450
	£7,460

Equipment—

Repairs to Truck Lines	300
Additional Lines, Trucks and Conveyors ..	900
Two Mobile Conveyors and Five Electric Motors	950
One Citrus Grader	60
	2,210
Incidentals	330
	£10,000

A. 7—FORESTRY DEVELOPMENT—£26,700.

At the time of writing this report a statement of future forest policy is being prepared for submission to Legislative Council. Capital or special expenditure under the proposed new policy is not therefore known but £26,700 has been allocated provisionally on the basis of an estimate prepared in May 1949:—

Buildings, Furniture and Equipment for a Research and

Training Institute	£12,000
Purchase of Vehicles	3,700
General Equipment	3,000
Office Buildings	3,000
Staff Buildings	5,000
	£26,700

A sum of £20,000 was also requested for the building of roads but this can be covered by the Feeder Roads item—A. 15 (*see below*).

A. 8—FISHERIES DEVELOPMENT—£5,500.

It is proposed to obtain the services of a Fisheries Officer for a period of two years on secondment from one of the Far Eastern dependencies to undertake work on the smoking and salting of fish and to advise on the management of a fish pond to be constructed at the Ratu Kadavulevu School.

Recurrent—

2 years.

Fisheries Officer £750	£1,500
Two Assistants at £150	600
Labour at £250	500
Travelling Expenses at £250	500
	£3,100

Capital—

Passages	500
Buildings and Equipment	1,400
Fish Pond at Ratu Kadavulevu School . .	500
	2,400
	£5,500

A. 9—AERIAL SURVEY—£50,000.

It is important that development plans for the proper use of land and the management of natural resources should be based on as detailed and up-to-date information as possible. Provision is therefore made for an aerial survey of the main islands—Viti Levu and Vanua Levu—and for the preparation of maps therefrom. The information obtained will prove of great value to the Departments of Lands and Survey, Agriculture, Works, Forestry, Fijian Affairs, and to the Administration, in matters concerned with land classification and development, road construction, waterworks, land drainage, power schemes and general administration. Accurate maps based on the survey, together with the photographic mosaic, would greatly facilitate the geological and soil surveys and would either reduce their costs or increase their value.

It is believed that the aerial survey could be carried out at a cost of £50,000 although details of this expenditure have not been prepared. If this scheme presents insuperable difficulties or is likely to be unduly delayed, it can be replaced by a scheme for the "Planning of Land Settlement" as proposed in Appendix G of the 1945 Plan.

A. 10—SOIL SURVEY—£5,000.

In 1944 Professor Shephard recommended the provision of £15,000 for a soil survey in Fiji in conjunction with a scheme costing £18,050 in the Western Pacific High Commission territories. The Statement of Agricultural Policy adopted in 1946 recommended a modified scheme costing £5,000. Of this sum £1,130 was allocated for expenditure in 1948 for the purchase of a station wagon and other items while £3,870 was to be spent between 1949 and 1951 on the salaries of a Soil Analyst and a Field Officer, on overseas passages, on local travelling and on equipment. In the absence of a Soils Chemist on the staff of the Agricultural Department the modified scheme has again been revised but details of the proposed expenditure of £5,000 have not yet been prepared pending consideration of a report by Dr. Grange, Director of the Bureau of Soils, New Zealand, who made a preliminary investigation in July 1949. It is proposed that the survey should be carried out by a team from the New Zealand Bureau.

A. 11—GEOLOGICAL SURVEY—£24,642.

The Secretary of State has approved a Colonial Development and Welfare grant (Scheme No. D. 1014) of £Stg 22,200 (£F24,642) to cover the cost of a geological survey in Fiji over a period of three years. Two Geologists with a small subordinate staff will be appointed to make a preliminary survey of the whole Colony so as to separate the area of volcanic rocks less likely to yield valuable minerals from the areas where mineral developments are more probable, and then to map the latter in detail. The estimate of £24,642 is made up as follows:—

Recurrent—	1st year.	2nd year.	3rd year.
Salaries and Allowances ..	£2,736	£2,832	£2,938
Travelling	850	850	850
Equipment	100	100	100
Labour	200	200	200
Contingencies	50	50	50
	£3,936	£4,032	£4,138
	Total Recurrent £12,106		
Capital—			
Overseas Passages	£1,260		
Instruments and Equipment ..	1,350		
Vehicles (2)	1,300		
Houses (2)	5,590		
Office Buildings	2,960		
Contingencies	76		
	Total Capital 12,536		
	Total Expenditure £24,642		

A. 12—NAVUA DRAINAGE PROJECT—£12,000.

Although it is desirable to spend large sums of money on opening up new land it is logical and prudent to ensure that the potentialities of more accessible land are realized and the Navua flats present a striking example of an area of high productivity which can be developed. The extent of flat land along the Navua coastal plain is probably between 15 and 18 square miles. An engineering survey is needed before drainage and protective works are undertaken, and it would also be necessary to constitute a controlling authority. If the area at present under partial development is to be fully utilized and the condition of the small farms improved, and if the much larger potential settlement area is to be rendered fit for profitable occupation, the drainage and protection of the land in the district as a whole must be made the duty of a properly constituted single authority.

With efficient drainage the productivity of the 2,200 acres now under rice could be raised by 50 per cent, an additional 5,000 acres could be rendered fit for rice cultivation by small farmers, and a large additional area of land, possibly unsuitable for rice, could be made available for pasture. Existing pasture lands, on which drainage is at present a major problem, would be greatly improved.

The estimated costs of the proposals are:—

Engineering survey—fees and expenses of Engineer for six months	£1,000
Assistants and Labour	750
Transport and Incidentals	250
Drainage and Protective Works (token sum)	10,000
	£12,000

A. 13—SAREA FIJIAN SETTLEMENT SCHEME—£20,000.

The improvement of Fijian village communities by the provision of social services and by raising the general standard of living, including recreation, can only be achieved by amalgamating small and scattered villages at suitable centres where facilities can be provided at reasonable cost and where the community will be large enough to function as a self-contained unit.

It is therefore proposed (but not immediately) to undertake a planned re-settlement of a group of villages in the Vatuvula-Naqali-Serea area of Naitasiri Province where land is likely to be available for the organized production of rice, bananas, native food crops, livestock products and other cash and subsistence crops. The settlement would function as a pilot project in the organization of productive enterprise amongst Fijian villages as communities and the lessons of such an experiment could be of wide application.

It is proposed that one half of the £20,000 should be regarded as an interest free loan repayable over a number of years. The settlers would be expected to provide labour and such items as a church and school. Details of the estimated costs are:—

Recurrent(8 years approximately)—

Salary of Development Officer, Allowances and Leave Passages	£10,000
Purchase of Livestock	1,000
Implements	700
Fencing	1,000
Maintenance and Equipment	1,500
Incidentals	1,000
	£15,200

Capital—

Tractor and Truck	1,550
Quarters and Office	1,500
Water Supply	500
Dispensary	750
Bails and Minor Works	500
	4,800

Total £20,000

The South Pacific Commission proposes to undertake a pilot project in community development on the Island of Moturiki (Province of Lomaiviti) in the near future. The Serea scheme will not therefore be put into operation until the results of the Moturiki scheme are available.

A. 14—NADI SOIL CONSERVATION SCHEME—£19,450.

In the dry zones of Viti Levu and Vanua Levu the deterioration of soils has advanced in some closely settled areas to a stage where action must be taken to repair the damage and to prevent its extension. The settlements of the Nadi basin, on the fringe of the cane belt, are an example of an area which requires special treatment. A survey would be carried out to determine the extent of soil erosion and deterioration, and a plan of land usage, rehabilitation and protection would be prepared. The operation of the plan would then depend on the voluntary co-operation of tenants and land owners with the appropriate Government departments.

The general direction of the proposed scheme could be undertaken by departmental staff but it would be necessary to appoint a full-time officer to work amongst the farmers and to carry out various operations with the voluntary assistance of the farmers concerned. Details of the estimated costs are:—

Recurrent—

Salary and Allowances of Supervisor (9 years)	£4,500
Transport and Travelling	2,500

Total Recurrent .. £7,000

Capital—

Fencing	£3,000
Establishment of Fodder Crops and Grass	2,000
Forest Nurseries and Planting	3,000
Houses (2)	4,450

Total Capital .. £12,450

Total Expenditure .. £19,450

A. 15—FEEDER ROADS—£445,000.

Lists of feeder roads urgently required in all parts of the Colony have been examined but they are not produced here because it is proposed to form roading committees in each district to advise on priority of construction and location. The committees would advise in the same way on the use of the £125,000 which is being provided elsewhere in this Plan for general communication roads. It is known that some 70 miles of feeder roads are needed in Viti Levu and Ovalau, and 170 miles in Vanua Levu and Taveuni. At a cost of £2,000 a mile a sum of £445,000 would provide over 220 miles of such roads.

A. 16—COUNTRY MARKETS—£12,500.

Markets have already been established at Labasa, Nausori, Nadi and Sigatoka at a cost of £24,000 and loans are being granted for town markets in Suva and Lautoka. The sum of £500 is intended for a market building at Ba and one at Vatuwaqa, Suva.

A. 17—CENTRAL SLAUGHTER YARDS, SUVA—£33,000.

There are at present three slaughter yards in the Suva area and at one of them the conditions and congestion are such that early rebuilding is necessary. There has been constant pressure by independent stock raisers and farmers for publicly owned slaughter yards and investigations have therefore been made of small town installations in New Zealand and Australia. The establishment of a central slaughter yard near Suva might encourage the operation of small butcheries in the Suva district and might result in the sale of meat at lower prices. Public health requirements could be met and full use could be made of slaughter yard wastes.

In 1948 the Advisory Council on Agriculture recommended that provision for a central slaughter yard for the Suva area should be included in the new development plan and that it should receive a high priority.

Provision of £33,000 is made for capital expenditure and it is proposed that recurrent expenditure should be provided in the annual estimates of the Agricultural Department. The latter is estimated at £2,618 a year but annual revenue with the slaughter yard in full operation is estimated at £4,395 a year. The surplus represents a return of 5½ per cent on capital costs. Details of the latter are:—

Buildings—Abattoir	£8,150	
By Products House	1,530	
Hide House	910	
	—	£10,590
Saleyards		4,860
Race		1,000
Drainage		1,000
Refrigeration, Rails and Built-in Equipment		2,500
Track and Trucks		750
Siteworks, Roads and Paths		2,250
By-Products Equipment		3,700
Installation and Supervision		750
Compensation for Existing Slaughter Houses	4,750	
Less Resale Value	1,500	
	—	3,250
Contingencies		2,350
		£33,000

A. 18—LIME AND CORAL SAND INVESTIGATIONS—£2,500.

This scheme is designed to encourage the use of lime or coral sand by farmers other than cane farmers. Relatively large scale trials and demonstrations will be undertaken on pastures and field crops on the assumption that, if they are successful, the organization of supplies will be undertaken by private enterprise supported if necessary by loans.

A. 19—PRODUCTION OF GRASS SEED—£5,000.

There is a wide and increasing demand for seed of grasses and fodders which cannot be supplied in bulk because of the lack of special equipment and facilities. The Department of Agriculture proposes to produce seed for sale to farmers.

A. 20—NAVUA RIVER HYDRO-ELECTRIC SCHEME—£566,000.

It is hoped that the Colonial Development Corporation will undertake this scheme, and geological and engineering investigations commenced in August 1949. The preliminary investigations are estimated to cost £Stg29,000 or £F32,190. The cost of constructing the Navua Dam and Power Station to an installed capacity of 18,000 kW, transmission lines and sub-stations is estimated to be £Stg2,010,000 or £F2,231,100. If the preliminary investigations are successful and the project proceeds, it would come into operation in 1955 with an installed capacity of 12,000 kW, the capacity being raised in 1956 to 18,000 kW by the installation of a third 6,000 kW set. The sum of £F566,000 represents a 25 per cent contribution to the scheme by the Fiji Government.

The scheme will probably be operated by a Public Utility Company which would also take over the existing undertaking of the Suva Town Council; the terms on which the Council would hand over have already been agreed.

It is not possible at this stage to say what charges will be made for electricity under the new scheme but the Corporation has stated that it is based on an assumed substantial reduction on existing charges in the Suva area.

A. 21—AGRICULTURAL AND INDUSTRIAL CREDIT—£150,000.

Credit is needed for those engaged in agriculture and industry where they are unable to obtain such assistance on reasonable terms in any other way, but much detailed inquiry is necessary before the details of the scheme can be worked out. In recognition of this need a sum of £150,000 has been provided although the sum required is likely to be very much greater eventually.

AR. 1—BIO-CHEMICAL INVESTIGATIONS—£12,500.

One of the main limiting factors to livestock production in Fiji is inadequate nutrition and steps are being taken to improve the position. The work is severely handicapped through lack of bio-chemical assistance. It is proposed with such assistance to determine basic nutritional factors in existing pastures, feeds and feeding stuffs and to assess the results of experimental work designed to improve the composition and management of pasture. Fodder conservation and other factors of an economic nature concerned with stock nutrition will also be investigated.

Expenditure over a period of five years is estimated as follows:—

Capital—							
Quarters and Equipment	..	..	..	..	..	..	£4,000
Recurrent (1st year)—							
Salary, etc., of Biochemist	..	..	..	..	..	..	£1,000
Overseas Passages	..	..	..	..	..	..	296
Local Travelling, etc.	..	..	..	..	..	..	250
Laboratory Equipment and Chemicals	..	..	..	..	..	..	100
Contingencies	..	..	..	..	..	..	100
							1,746
Second year	..	..	..	..	..	..	1,450
Third year	..	..	..	..	..	..	2,042
Fourth year	..	..	..	..	..	..	1,450
Fifth year	..	..	..	..	..	..	1,812
							8,500
Total Recurrent							8,500
Total Expenditure							£12,500

It is proposed that Fiji should meet one-third (£2,833) of recurrent expenditure and application has been made for a Colonial Development and Welfare grant for the remaining £9,667.

AR. 2—BOTANICAL INVESTIGATIONS—£14,000.

It is proposed to undertake a survey of the plants of Fiji, the Gilbert and Ellice Islands Colony and the British Solomon Islands Protectorate. This work is of fundamental importance to the proper development of agriculture and forestry, and particular attention will be given to forest species, grasses, alien weeds and other introduced species. The scheme provides for the building of a herbarium in Fiji and for the preparation for publication of a "Flora of Fiji".

Expenditure over a period of five years is estimated as follows:—

Capital—							
Quarters, Laboratory, Herbarium and Equipment	..	..	..	..	..	..	£5,500
Recurrent (1st year)—							
Salary, etc., of Systematic Botanist	..	..	..	..	..	..	£1,000
Overseas Passages	..	..	..	..	..	..	296
Local Travelling, etc.	..	..	..	..	..	..	250
Laboratory Equipment and Chemicals	..	..	..	..	..	..	100
Contingencies	..	..	..	..	..	..	100
							1,746
Second year	..	..	..	..	..	..	1,450
Third year	..	..	..	..	..	..	2,042
Fourth year	..	..	..	..	..	..	1,450
Fifth year	..	..	..	..	..	..	1,812
							8,500
Total Recurrent							8,500
Total Expenditure							£14,000

Fiji will meet one-third (£2,833) of recurrent expenditure and application has been made for a Colonial Development and Welfare grant for the remaining £11,167.

AR. 3—PLANT DISEASE INVESTIGATIONS—£12,500.

A Plant Pathologist is needed to undertake research work in connexion with plant diseases and their control particularly on Rice Yellow Disease (where early control is of great economic importance) and on several banana diseases, such as Bunchy Top and *Cercospora*, which hinder the expansion of the banana industry. Diseases in other crops—dalo, tomatoes, yaqona, citrus, pineapples, etc.—also require investigation. An improved control of plant diseases will protect the Colony's food supplies for the increasing population and will assist the expansion of the banana export industry. A host index of plant pathogens can be prepared and an effective plant protection service developed.

Expenditure over a period of five years is estimated as follows:—

Capital—

Quarters and Equipment £4,000

Recurrent (1st year)—

Salary, etc., of Plant Pathologist £1,000

Overseas Passages 296

Local Travelling, etc. 250

Laboratory Equipment and Chemicals 100

Contingencies 100

1,746

Second year 1,450

Third year 2,042

Fourth year 1,450

Fifth year 1,812

Total Recurrent 8,500

Total Expenditure £12,500

Fiji will meet one-third (£2,834) of recurrent expenditure and application has been made for a Colonial Development and Welfare grant for the remaining £9,666.

APPENDIX B.

SCHEMES RELATING TO SOCIAL SERVICES.

MEDICAL AND PUBLIC HEALTH.

B. 1—Suva Medical Centre—

Buildings £186,702

Furniture and Equipment 50,000

Preparation of Ground 3,300

Acquisition of Land 5,940

£245,942

B. 2—T.B. Survey 28,230

B. 3—Lautoka Hospital—completion 5,600

B. 4—Tuberculosis Control—contribution to War Memorial Fund 20,000

B. 5—Makogai Leprosy Colony 29,200

B. 6—Central Medical School 7,500

B. 7—Colonial War Memorial Hospital—Nurses' Quarters 4,450

B. 8—Hospital Laundry Extensions 26,500

EDUCATION.

B. 9—Queen Victoria School 100,000

B. 10—Combined Technical Centres (2) 14,000

B. 11—Indian Central Schools (7) 59,500

B. 12—Ratu Kadavulevu School—Classroom Block 14,000

B. 13—Adi Cakobau School 17,000

B. 14—Natabua Indian Secondary School—Extensions 3,500

B. 15—Building Pool 58,000

B. 16—Staff Quarters 36,000

GENERAL.

B. 17—Industrial Housing 80,000

B. 18—Broadcasting 5,000

B. 19—Rewa Water Supply—completion 63,062

B. 20—Suva Water Supply 200,000

B. 21—General Improvements to Water Supplies 34,929

£1,052,413

RESEARCH.

BR. 1—Medical Research Library 4,051

BR. 2—Linguistic Research 2,000

BR. 3—Educational Research Institute 32,678

BR. 4—Research into Anæmias and Dental Disease 480

£1,091,622

Deduct Expenditure by Fiji on behalf of W.P.H.C. on T.B. Survey scheme 14,115

£1,077,507

or 25.35 per cent of £4,250,000

DESCRIPTION OF SCHEMES.

MEDICAL AND PUBLIC HEALTH.

B. 1—SUVA MEDICAL CENTRE—£245,942.

In the 1945 plan the estimated cost of a hospital on a new site (the Winston Churchill Hospital) was £800,000. In 1947 it was decided to develop the Colonial War Memorial Hospital on its present site at a cost of £650,000 and application was made for a Colonial Development and Welfare grant to carry out the revised scheme. A grant was eventually approved in 1948 (Scheme No. D. 933) for £186,702 to carry out the first four items in the revised scheme:—

Medical School and Students' Hostel	£60,000
Nurses' Training School and Hostel	80,000
Extension of Obstetrics Wing	15,000
Out-Patients' Department	30,000
Contingencies	1,702
	£186,702

The grant did not cover the cost of providing equipment and furniture for the new buildings or the cost of laying-out and preparing the grounds. Equipment and furniture is estimated at £50,000 and preparation of grounds at £3,300; application for a Colonial Development and Welfare grant has been made for these additional amounts.

The revised estimate of £650,000 did not include any sum for the acquisition of land in the area concerned and £5,940 is needed for this purpose.

B. 2—TUBERCULOSIS SURVEY—£28,230.

In 1943 a Colonial Development and Welfare grant of £28,638 (Scheme No. D. 284) was approved but the survey could not commence until staff and the necessary equipment could be obtained. A preliminary investigation was carried out in 1946 and certain equipment was obtained in 1948 at a cost of £408 so that the balance available for expenditure from 1949, when the survey commenced (in April), to 1952 was £28,230. Details of this expenditure are as follows:—

Capital—

Portable X-Ray	£5,000
Van and Trailer	1,500
Laboratory Equipment	200
Field Equipment	1,200
X-Ray Films	3,600
Spares and Accessories	500
Office Equipment	200
Total Capital	£12,200

Recurrent (3 years)—

Salary, etc., of Survey Officer	3,537
Salary, etc., of Assistants	2,270
Transport Allowances	900
Carriers (2)	360
Clerical Staff	2,760
Radiographer	2,037
Running Expenses of Vehicles	2,250
Travelling Expenses	1,200
Overseas Passages	75
Contingencies	641
Total Recurrent	£16,030
Total Expenditure	£28,230

As the survey is to cover also the Gilbert and Ellice Islands Colony and the British Solomon Islands Protectorate half the above expenditure (£14,115) is chargeable against the territorial Colonial Development and Welfare allocation to those Western Pacific High Commission territories.

B. 3—LAUTOKA HOSPITAL IMPROVEMENTS (COMPLETION)—£5,600.

Between 1945 and 1948 a programme of improvements to the hospital at Lautoka has been carried out at a cost of £29,255. This was being completed in 1949 and £5,600 is included for this purpose.

B. 4—TUBERCULOSIS CONTROL—£20,000.

Following the recommendations of a War Memorial Committee (for its report see Council Paper No. 13 of 1949) a public appeal has been launched for funds to carry out a project which includes the provision of additional accommodation at Tamavua Sanatorium, at Lautoka and at Labasa. Government has promised to contribute to the funds raised under this appeal on a £ for £ basis up to £20,000 and this sum is therefore provided in the revised development plan. The construction programme which has been recommended as necessary or desirable is estimated at £49,075 as follows:—

Wards, huts, accommodation and equipment at Tamavua	£8,500
Annexes, accommodation and equipment at Lautoka	10,525
Annex, accommodation and equipment at Labasa	6,175
Annex, accommodation and equipment at Wainibokasi	1,800
Renovation and equipment at Nanukulua	3,000
Annexes at Vunidawa and Taveuni	7,390
Annexes at Savusavu, Kadavu, Koro, Gau, Nairai and Batiki ..	11,685
	£49,075

but whether the full programme can be carried out depends on the response to the T.B. appeal and the recommendations of the Committee appointed to administer the funds raised.

B. 5—MAKOGAI LEPROSY COLONY—£29,200.

Provision is made for the building of quarters for two Assistant Medical Practitioners (£2,200), labour at Nasau (£4,000) and for Indian patients (£23,000).

B. 6—CENTRAL MEDICAL SCHOOL—£7,500.

Provision is made for the building of quarters for the Principal (£4,000) and the Assistant Principal (£3,500) of the Central Medical School in Suva.

B. 7—COLONIAL WAR MEMORIAL HOSPITAL—£4,450.

Additional accommodation is required urgently for the nurses at the Colonial War Memorial Hospital notwithstanding the fact that provision is made under item B. 1 for a new Nurses' Hostel. For £4,450 a hut can be converted and furniture, kitchen and sanitary facilities provided.

B. 8—HOSPITAL LAUNDRY EXTENSIONS—£26,500.

Under item B. 1 above reference is made to the revised Suva Medical Centre scheme estimated to cost £650,000 but only four items in the revised scheme are proceeding. Of the remaining items in these proposals, the provision of a new hospital laundry is the most urgent. The work which is undertaken at the present hospital laundry has steadily increased and the linen from the Tamavua Hospital is also sent to this laundry. Some time ago, arrangements were made to work double shifts so that the machinery is going for 16 hours a day. The Mechanical Engineer has reported that there is danger of a complete breakdown in the laundry machinery, much of which is approaching the end of its useful life. With the opening of two additional wards at the Tamavua Hospital and the completion of the new Central Medical School, the Central Nursing School and maternity annex, each with increased accommodation, an extension to the present laundry will become an urgent necessity. The revised approximate estimate of the cost of the necessary facilities is £26,500 but detailed figures have not yet been prepared.

EDUCATION.

B. 9—QUEEN VICTORIA SCHOOL—£100,000.

In February, 1949, the Secretary of State approved a Colonial Development and Welfare grant (Scheme No. D. 1079) of £Stg90,100 or £F100,000 for the building of Queen Victoria School on a new site, donated by Sir Henry Scott, K.C., on the Tailevu coast six miles north of Lodon and 45 miles from Suva.

The school was originally established in 1906 at Nasinu, five miles from Suva, but in 1943 the buildings were used as an American Army Hospital and the school was moved to the hospital site at Nanukulua, some 80 miles from Suva. In 1945 and 1946 the buildings at Nasinu were extended and adapted for use as a Teachers' Training College at a cost of £36,500 and the College opened in January, 1947, with 238 students. Meanwhile conditions at Nanukulua were unsatisfactory and at the end of 1948 the boys were moved to Lodon to share school facilities and accommodation at the Ratu Kadavulevu School.

During 1948 a road was being constructed from Lodon to the new school site (Matavatuou). As soon as the Colonial Development and Welfare grant was made it was therefore possible to start work on the new site.

The new school will accommodate 180 boys and will consist of six houses each with a recreation room. A Big School will contain five classrooms, a science laboratory, a library and a handicraft workshop. Provision is also made for a central kitchen, dining halls, agricultural out-buildings and staff quarters.

Details of the estimated expenditure are:—

Site Expenses, Roads, Jetty	£8,500
Big School	13,200
Dormitories, Dining Hall, Laundry, Sick Bay	24,000
Staff and Servants Quarters (12)	20,050
Equipment and Furniture	5,000
Water and Lighting	9,500
Agricultural Development—Buildings, Fencing, Clearing, Planting, Equipment and Livestock	6,288
Supervision and Transport	2,000
	£88,538
Contingencies	11,462
	£100,000

Present recurrent expenditure on Queen Victoria School is £8,000 a year and no great increase over this figure is expected when the school operates on its new site. School fees will be increased and the school farm at a cost of £1,200 a year is expected to produce revenue in kind to the value of £2,000 when fully developed.

B. 10—COMBINED TECHNICAL CENTRES—£14,000.

It is proposed to provide combined technical centres at Labasa and Lautoka each costing £7,000. These centres will contain one handicraft workshop for 24 pupils, one classroom for 30 pupils, one housecraft room for 20 pupils, two small staff rooms and offices. The premises will be available for adult education work, as well as for boys and girls of the surrounding district during school hours.

B. 11—INDIAN CENTRAL SCHOOLS—£59,500.

In place of the large intermediate schools envisaged in the Education Plan (approved in 1946) it is proposed to establish seven central schools with a technical bias at strategic sites around Viti Levu. Four of these will be for boys and three for girls; the latter having a bias towards homecraft, hygiene and child welfare. The roll of each school will be 90 and the length of the course three years. Pupils would be selected at the age of 14 from Class 8 and the annual intake would be 30 in each case.

Provisional sites for these schools are:—

Nausori—Boys.	Tavua—Boys.	Ba—Girls.	Sabeto—Boys.
Nadi—Girls.	Suva—Boys	Suva—Girls.	

The estimated cost of building and equipping one central school is £8,500.

B. 12—RATU KADAVULEVU SCHOOL—CLASSROOM BLOCK—£14,000.

Present accommodation at this school (at Lodoni) consists almost entirely of army huts or similar buildings but there is no proper teaching accommodation. Teaching is now carried out in sections of dormitories. A teaching block consisting of eight classrooms is estimated to cost £14,000.

B. 13—ADI CAKOBALU SCHOOL—£17,000.

This school, recently opened at Sawani, has a roll of 80 Fijian girls but it is necessary to enlarge it to accommodate 180 girls, and to improve the present buildings at an estimated cost of £17,000.

B. 14—NATABUA INDIAN SECONDARY SCHOOL—EXTENSIONS—£3,500.

This school now accommodates 128 pupils including 13 girls as day pupils and 54 boarders. At a cost of £3,500 accommodation is to be increased so as to take 180 pupils including 60 boarders.

B. 15—BUILDING POOL—£58,000.

Under the 1946 Education Plan school building grants were discontinued because it was thought that the building programme of Government in establishing new schools would consume all available funds (£140,000). This programme however cannot be executed owing to the difficulty of obtaining supplies, the pressure of work on the Public Works Department, and because the cost is now more than Government can sustain. In view of the desirability of encouraging communities to build their own schools it is proposed that building grants be introduced and that a fund of £58,000, spread over the remaining years of this Plan, be reserved for this purpose. The fund would be available to Government for the building of new schools should circumstances arise rendering this necessary and feasible, but it will be used principally to finance the building or extension of schools by local bodies.

B. 16—STAFF QUARTERS—£36,000.

Quarters for teaching staff are required in connexion with schemes B. 10, 11, 13 and 14.

GENERAL.

B. 17—INDUSTRIAL HOUSING—£80,000.

Early in 1948 a Committee was appointed to consider a scheme for industrial housing in Fiji. It reported in September 1948 and recommended the construction of 100 houses in the first instance in the Suva area at an estimated cost, inclusive of roads and other external services, of £100,000. The Committee also made recommendations regarding sites, plans and contracts, the constitution of a Housing Board and the enactment of a Housing Ordinance. They did not deal with the question of probable financial returns through rents but on the basis of present building costs and present wage levels it is believed that rent revenue would not be sufficient to cover capital charges, maintenance, insurance and the expenses of staff required to administer a housing scheme.

However £80,000 has been provided so that a start can be made on an industrial housing scheme as soon as staff and other circumstances permit.

B. 18—BROADCASTING—£5,000.

The future arrangements for broadcasting in the Colony are at present under review. A token sum of £5,000 is included to cover necessary expenditure if Government becomes responsible either for broadcasting as a whole or for certain limited facilities.

B. 19—REWA WATER SUPPLY (COMPLETION)—£63,062.

The completion of this scheme has been held up owing to the continued delay in delivery of materials, particularly reinforcement steel for the reservoir. The power house and pump house have been completed. The revised estimate of the cost of the whole scheme is £105,530 of which £42,468 was spent by the end of 1948. £63,062 is therefore required to complete the scheme.

B. 20—SUVA WATER SUPPLY—£200,000.

It is necessary to allocate a considerable sum to the Suva Water Supply for a filtration and chlorination plant and for general improvements to the reticulation. The Committee had in mind the expansion which will take place when the international airport is established at Suva Point, the growing population of the town, the dangers of an outbreak of disease in congested areas and the obligation to provide a safe water supply for the use of ships using the port of Suva. A close estimate of the work required has not yet been prepared. See also B. 21 below.

B. 21—GENERAL IMPROVEMENTS TO WATER SUPPLIES—£34,929.

Between 1945 and 1948 a sum of £44,485 has been voted in the Development Advance Account for general improvements to water supplies in all parts of the Colony—Suva, Lodon, Vaileka, Tavua, Lautoka, Nadi, Sigatoka, Savusavu and Labasa. When this report was being prepared it was estimated that expenditure on these improvements to the end of 1948 was £9,556 so that it is necessary to provide £34,929 to complete the programme. Some of the work needed in Suva will be covered by the sum allocated under B. 20 above so that the balance available under this item can be used for improvements to the Ba supply and for further work at Lautoka. During 1949 materials which have been on order for nearly two years were being delivered and when it is known what progress has been made on the most essential improvements a new plan of expenditure, within the limits of £34,929, will be prepared. The original programme contained the following items:—

Suva	—Mains to Lami Bridge, Suva Point, Battery Road, Samabula and Flagstaff. Replacements and improvements in Central Suva. Mains to new subdivisions.
Lautoka	—High Level Reservoir and new mains.
Nadi	—Pumping Station, Reservoirs, new mains and improvements.
Lodon	} General improvements to supply and mains.
Vaileka	
Tavua	
Sigatoka	
Savusavu	
Labasa	

RESEARCH.

BR. 1—MEDICAL RESEARCH LIBRARY—£4,051.

The Secretary of State has approved a Colonial Development and Welfare research grant of £Stg3,650 or £F4,051 (Scheme No. R. 287) for the establishment in Suva of a central library where various departmental collections of books, reports, monographs and journals can be stored, indexed and maintained in such a manner as to enable references to be made available for medical officers and other workers in Fiji and the neighbouring island territories.

Details of the expenditure are:—

Capital—

Furniture, Filing Cabinets and Typewriters, etc.	£742
Literature and New Books	1,200
Modifications of Buildings, Shelving, etc. ..	750
	— £2,692

Recurrent—

Honorarium to Temporary Librarian	50
Salary of Librarian with Allowances	340
Clerk and Librarian-in-Training with Allowances (2 years)	598
General Expenses, Incidentals and Contingencies	371
	— 1,359

Total £4,051

BR. 2—LINGUISTIC RESEARCH—£2,000.

In 1947 the Secretary of State approved a Colonial Development and Welfare grant (Scheme No. R. 206) for a linguistic research survey in Fiji and the neighbouring island territories. This survey is being carried out by Mr. G. B. Milner of the London School of Oriental Languages and it has already been completed in Fiji. Mr. Milner is now studying the background and origin of Pacific languages and dialects in points to the east (Tonga—Polynesia) and to the west (Solomon Islands—Melanesia). £2,000 is provided to cover expenditure from the beginning of 1949 to the end of the survey. The total expenditure on the scheme between 1947 and 1950 is estimated at £3,985.

BR. 3—EDUCATIONAL RESEARCH INSTITUTE—£32,678.

The Institute is intended to be of service to Fiji, the Solomon Islands and the Gilbert and Ellice Islands. The short-term objective of the scheme is to create and standardize a series of tests of intelligence and practical ability and to produce norms for measures of attainment in view of the necessarily highly selective nature of post-primary education in the territories concerned. The long-term objective is the study of teaching method and the content of the curriculum in their application to the many linguistic groups of these territories, with a view to the ultimate production of courses of study and text books for such courses based on local needs and conditions.

The Institute would be established at the Nasinu Teachers' Training College.

Details of the proposed expenditure are:—

Capital—

Institute Building, Equipment and Furniture ..	£5,000
Quarters for Director of Research and for two Assistants	7,800
Overseas Passages	680
Printing and Publications	500
	— £13,980

Recurrent (5 years)—

Salary of Director of Research £1,350	6,750
Salary of Two Research Assistants £450 x 50—550	5,000
Clerical Staff (2)	2,880
Allowances	2,068
Internal Travelling	1,500
Office Expenses and Contingencies	500
	— 18,698

Total £32,678

It is intended that Fiji should meet one-half (£9,349) of recurrent expenditure and application has been made for a Colonial Development and Welfare grant for the remaining £23,329.

BR. 4—RESEARCH INTO ANÆMIAS AND DENTAL DISEASE—£480.

In 1947 the Fiji and Western Pacific Research Council recommended that applications be made for Colonial Development and Welfare research grants—

(a) of £9,655 for an investigation of the factors responsible for the heavy incidence of anæmias and other morbid conditions of doubtful origin which cause a disproportionately high rate of invalidism in Fiji; and

(b) of £4,885 for an investigation into the types and causes of dental disease in Fiji.

Both investigations would include a programme of nutritional research and it was therefore intended that they should be undertaken concurrently.

The Colonial Medical Research Committee considered the applications made and advised that a specialist officer should carry out a preliminary investigation of the problems in order to plan the main investigation programme. It is expected that the preliminary survey can be undertaken in the near future in association with the Nutrition Division of the New Zealand Department of Public Health and a grant of £480 under the Colonial Development and Welfare Acts has been approved for this purpose. (Scheme No. R. 353.)

APPENDIX C.

SCHEMES RELATING TO COMMUNICATIONS AND GENERAL WORKS.

C. 1—International Airport—contribution	£340,000
C. 2—Walu Bay Reclamation	85,000
C. 3—Lautoka Electricity—completion	28,000
C. 4—Fitting Shop, Suva—completion	11,000
C. 5—Duplication of Suva to Lautoka Telephone Line—completion	11,000
C. 6—Automatic Telephone Exchange, Suva	122,000
C. 7—Suva Port Accommodation	150,000
C. 8—Lautoka Wharf	150,000
C. 9—Wharf on Tailevu Coast	5,000
C. 10—Suva Slipway	100,000
C. 11—Road Survey Unit	10,000
C. 12—New Roads	125,000
C. 13—Surfacing of Roads	140,000
C. 14—Engineering Surveys and Plant	75,490

ITEMS STILL UNDER REVIEW.

C. 15—Rural Telephone Lines	}	.. .. .	103,000
C. 16—Telecommunications			
C. 17—Town and Township Works			
			<u>£1,455,490</u>
or 34.25 per cent of			<u>£4,250,000</u>

DESCRIPTION OF SCHEMES.

C. 1—INTERNATIONAL AIRPORT (CONTRIBUTION)—£340,000.

At a meeting of the South Pacific Air Transport Council held in Wellington in December 1948, it was recommended that the international airport in Fiji should be constructed at Suva Point. During 1949 land and engineering surveys of the site were proceeding and close estimates of cost will probably not be available until early in 1950. When these are considered by the Governments concerned a final decision will be taken on the project. Meanwhile Nadi continues in use as a temporary international airport and expenditure will have to be incurred there until the new airport is opened.

On the basis of estimates prepared by the Airport Commission in 1948 the cost of constructing the international airport at Suva Point and of interim improvements at Nadi is approximately £1,500,000 of which sum the United Kingdom share would be £500,000, the remainder being met by New Zealand and Australia.

It is proposed that Fiji should contribute up to one-half of the United Kingdom share and Fiji has also agreed to bear the cost of land acquisition estimated in 1948 at £90,000. It has not yet been decided whether Fiji's share should be inclusive or exclusive of land acquisition costs but a sum of £340,000 is included in this Plan as indicating the maximum sum which the Colony can afford.

C. 2—WALU BAY RECLAMATION—£85,000.

Work on this reclamation scheme commenced in May 1949 and it should be completed by the middle of 1950. It is being carried out by contract.

A summary of the estimated cost is:—

Work by Contract—Clearing, Excavating, Filling, Facing, Drainage, Diversion of Services, Road Restoration, Staff Accommodation, Insurances, Freight, Supervision, etc.	£77,337
Work by P.W.D.—Formation, Surfacing and Sealing of Main Road	3,000
Formation and Surfacing of Subsidiary Roads	1,500
Culverts	270
Contingencies	2,893
	<u>£85,000</u>

Under this scheme the area to be reclaimed will be approximately 34.8 acres; roads will cover nine acres so that the area available for industrial and other purposes will be 25.8 acres. When the whole area is in use revenue from rents would be about £2,900 a year, representing a return of 3.4 per cent on capital.

C. 3—LAUTOKA ELECTRICITY (COMPLETION)—£28,000.

The estimated cost of this new installation at Lautoka is £32,600 of which £4,600 was spent by the end of 1948. Generating equipment ordered in 1945 was not delivered until the end of 1948. Transformers and distribution equipment was expected to be delivered in 1949. The power house has been completed and quarters for attendants are being constructed. Details of the estimated cost are:—

Site Works and Access	£550
Attendants' Quarters	1,800
Power House	3,780
Generating and Ancillary Equipment	13,725
Main Distribution Equipment	9,700
Domestic Wiring and Metres	1,875
Contingencies	1,170
	<u>£32,600</u>
Less Expenditure to 31st December, 1948	<u>£4,600</u>
	<u>£28,000</u>

C. 4—FITTING SHOP, SUVA (COMPLETION)—£11,000.

In 1946 it was decided to reconstruct and extend the fitting shop in the Mechanical Engineer's yard in Suva. The cost, revised in 1948, was estimated at £12,950 for constructional work and for new machinery and plant. The machinery ordered in 1946 is being delivered gradually and structural steel ordered in 1947 has been received. Expenditure to the end of 1948 was £2,334 so that £10,616 plus £384 for further contingencies (total £11,000) is required to complete the work.

C. 5—DUPLICATION OF SUVA-LAUTOKA TELEPHONE LINE (COMPLETION)—£11,000.

In 1947, £2,250 was spent on the purchase of the carrier equipment which had been installed during the war period for use between Suva and Lautoka. In spite of this facility the traffic on this line is greatly congested and in 1949 £6,500 has been provided (under Head XXIIA subhead 10 of departmental Estimates) for duplication of the sections between Suva and Navua, and between Nadi and Lautoka. £11,000 is required to complete the scheme in the section between Navua and Nadi (107 miles). Details of the estimated expenditure are:—

Materials from United Kingdom	£8,000
Materials from Australia	1,000
Labour and Transport	2,000
	£11,000

When the whole scheme is complete additional revenue of £2,000 a year may be expected; additional maintenance costs would be about £500 a year.

C. 6—AUTOMATIC TELEPHONE EXCHANGE, SUVA—£122,000.

The manually operated equipment at the present Suva Exchange is obsolete and, as a result of constant improvization during and since the war, it is now required to do work far beyond that for which it was originally designed. Each switchboard has a capacity of 100 lines but, partly to meet present demands, the switchboards have been extended locally to provide an extra 15 lines each. Provision of an entirely new line, however, is now rarely possible and the majority of new subscribers must either accept party-line service or go without service at all.

The last possible local conversion of a switchboard was carried out in mid-1949 and beyond this no further improvization can take place. Nearly 200 persons are waiting for connexions and new applications are constantly being made. Wear and tear on the present antiquated equipment makes maintenance increasingly costly.

An automatic telephone system in Suva is the only adequate answer to the present situation. Expert advice has been obtained and assurances have been given that the system will function satisfactorily in Suva's damp tropical climate; in fact such systems are already operating in many tropical countries with comparable climates.

Under the automatic system the basis of telephone charges will probably be altered. The present flat rate is inequitable in that large users of the service pay no more than small users. Provision has therefore been made for the supply of meters and a small rental will be charged on the installation, plus a unit call rate. This will increase the cost to the large users but many small users will probably obtain a cheaper service; however a more efficient service will be available for all.

If rental of £4 a year is charged and 1d. for each call, annual revenue would be approximately £17,300. Annual expenditure on operators, technical and other staff, lighting, power, renewals and replacements is estimated at £11,478.

Details of the capital expenditure of £122,000 are:—

Exchange Equipment	£Stg51,600
Telephone Switchboards and Instruments.. .. .	14,584
Consultants' and Contract Fees, Crown Agents Charges, Freight and Insurance	16,516
Installation and Maintenance Officer for six months	4,890
	£Stg87,590 = £F97,913
Exchange Building	20,000
Cabling from present to new Exchange	1,500
Passages and Salaries of Installing Officers	2,587
	£F122,000

C. 7—SUVA PORT ACCOMMODATION—£150,000.

In the report of the Port Improvements Committee (Council Paper No. 8 of 1948) it was recommended that the existing main wharf sheds be widened and improved, that new local cargo and storage sheds be built, that certain private bulk stores be removed to other sites on payment of compensation, that Jellicoe Road be moved to the eastward, that Harris Road be widened and surfaced and that other essential changes be made in the wharf area. The estimated cost of this work was £140,000 but prices of structural steel and other materials have increased since the Committee reported and it is therefore necessary to provide at least £150,000 to carry out the necessary improvements. A closer estimate of costs cannot at this stage be provided.

The Committee also recommended that £10,000 be spent on the provision of mooring buoys for oil tankers but the site which the Committee had in mind has been found to be unsuitable and other proposals have been investigated. These are likely to cost about £80,000 but as they are still being discussed no provision for them has been made in this Plan.

C. 8—LAUTOKA WHARF—£150,000.

In 1944 the cost of this wharf and ancillary facilities was estimated at £120,000 but an upward revision of this figure is necessary. The scheme is more fully described in paragraphs 84-87 and Appendix P of the 1945 Report.

Detailed plans of the scheme have not yet been prepared and it may be necessary to obtain the advice of consultant engineers before a final estimate can be provided.

C. 9—WHARF ON TAILEVU COAST—£5,000.

A site has been selected for this wharf at a point approximately four miles north of Lodon on the Tailevu coast; the new Lodon-Qoma road passes this point. Such a wharf would be of great benefit to those who now use the beach landing at Lodon for embarking and disembarking from vessels from Ovalau, Makogai and other islands in Lomaiviti and Vanua Levu. The wharf may also be used for smaller vessels bringing produce from centres on the Tailevu coast which are not yet served by a motorable road. The cost of a jetty 370 feet long and of a waiting shed and other facilities is estimated at £5,000.

C. 10—SUVA SLIPWAY—£100,000.

Existing facilities for the repair of Government and trading vessels comprise two Government slipways in Suva, with a nominal capacity of 50 tons and 500 tons. The latter, a timber structure, is over 30 years old and its condition is such that its anticipated further period of use is a few years only. Since slipping facilities are essential to the trade of the Colony, provision is made under this scheme for a new concrete slipway with a steel cradle, winding gear, etc. It will have a nominal capacity of 1,000 tons with 11 feet of water over the keel blocks at high tide and with a cradle 200 feet long. It is considered that a slipway of this size is adequate to handle all inter-island shipping, and such as may offer from adjoining territories, for many years to come. A tentative design has been approved by consultants in the United Kingdom but as detailed drawings and plans are still being prepared it is not yet possible to provide estimates of cost in detail.

It is expected that revenue from slipping charges on the new slipway will more than cover depreciation, interest on capital, and maintenance and working expenses.

C. 11—ROAD SURVEY UNIT—£10,000.

For the roading proposed in this plan (items A. 15 and C. 12) little or no survey or planning work has been possible. The staff of the Works Department is such that slow progress only on such work would be possible. As it is essential that reconnaissance survey, design and ordering of materials should be undertaken well ahead of construction, it is desirable to make separate provision for a Road Survey Unit. The bulk of the expenditure will be on the salaries and expenses of specially recruited temporary staff experienced in the location and design of road and bridge work.

C. 12—NEW ROADS—£125,000.

Provision is inserted for new construction and reconstruction. Reconstruction would not include general improvements to existing roads but only work of entire reconstruction where essential. Standards of construction and the actual programme of work would be drawn up by special committees. The cost of road works in Fiji is high owing to adverse topography and climate. Depending on traffic requirements, location and agreed standards, the cost per mile of gravelled road is of the order of £2,000-£3,000. Between this item and item A. 15 expenditure of £570,000 is recommended for new roads.

C. 13—SURFACING OF ROADS—£140,000.

This provision is for a programme of bitumen surfacing of existing gravelled roads working outwards progressively from Suva and the main centres of population where the traffic density is highest and the danger and nuisance from dust is greatest. At these places difficulty is now experienced in maintaining roads to fair trafficable standards with gravelled surfaces, while the annual cost approaches or exceeds that for bitumen surfaces.

C. 14—ENGINEERING SURVEYS AND PLANT—£75,490.

It will be necessary to use staff and plant indiscriminately on different items in the revised Plan and provision is therefore made separately for this purpose. See also paragraph 40 of the main report.

C. 15-C. 17—ITEMS STILL UNDER REVIEW. RURAL TELEPHONE LINES; TELECOMMUNICATIONS; AND TOWN AND TOWNSHIP WORKS—£103,000.

Consideration is being given to proposals for rural telephone lines in the Navua-Serua area, between Savusavu and Vunilagi, and between Suva and Sawani.

At item B. 18 £5,000 has been provisionally allocated for capital expenditure on future broadcasting arrangements. Provision will also be needed for central receiving and transmitting stations but as the whole question of broadcasting and internal telecommunications is still unsettled no estimate can be given of the capital required for the latter.

Town Planning schemes for the main centres of the Colony have not yet been completed but it is certain that funds will be required for various subdivisions, drainage schemes and other town and township improvements.

APPENDIX D.
SUMMARY OF 1945 DEVELOPMENT PLAN WITH ESTIMATES OF COST.

	1st Five Years.	2nd Five Years.	Total.
I—MEDICAL AND PUBLIC HEALTH—			
(a) Suva Medical Centre	250,000	550,000	800,000
(b) Improvements to Regional and Provincial Hospitals	50,000	....	50,000
(c) Quarantine	19,000	....	19,000
(d) Conversion of Colonial War Memorial Hospital to Public Health Centre ..	15,000	....	15,000
(e) Public Health Centre, Lautoka ..	5,000	....	5,000
(f) Improvements to Leper Hospital, Makogai	23,900	....	23,900
(g) Leper Sub-Station, Suva	15,000	....	15,000
(h) Tuberculosis Sanatorium	70,000	....	70,000
(i) Malaria and Mosquito Control—Five years at £25,000	125,000	....	125,000
(j) Fijian Dispensaries and Clinics .. ..	....	50,000	50,000
	572,900	600,000	1,172,900
II—EDUCATION—			
(a) Teachers' Training College	60,000	....	60,000
(b) Queen Victoria School (Fijian)	54,000	....	54,000
(c) Indian Secondary School	40,000	....	40,000
(d) Indian Agricultural School	13,500	....	13,500
(e) Technical School and Hostel	66,000	....	66,000
(f) Rural Primary Schools	40,000	40,000	80,000
(g) Urban Primary Schools	70,000	70,000	140,000
(h) Literacy Investigation	2,000	....	2,000
(i) Overseas Education Grants	5,520	7,500	13,020
(j) Library and Museum Building	20,000	....	20,000
(k) Probation of Offenders and Treatment of Young Offenders	24,000	....	24,000
	395,020	117,500	512,520
IIIA—AGRICULTURE—			
(a) Soil Survey	15,000	....	15,000
(b) Planning of Land for Settlement	14,500	....	14,500
(c) Public Markets	50,000	....	50,000 ⁽¹⁾
(d) Establishment and Equipment of Experi- mental Stations and Unit Farms	100,000	47,000	147,000
	179,500	47,000	226,500
IIIB—FORESTRY—			
(a) Forestry Investigations	2,500	....	2,500
IV—TOWN PLANNING AND DEVELOPMENT AND PUBLIC BUILDINGS—			
(a) Development of Townships and Settle- ments	60,000	....	60,000
(b) Improvements to Suva Streets, Construc- tion of Footpaths and Purchase of Machinery	50,000	....	50,000 ⁽²⁾
(c) Recreation Grounds	25,000	....	25,000 ⁽²⁾
(d) Nukulau Holiday Resort	10,000	....	10,000
(e) Reclamation, Walu Bay Area and Bau ..	30,000	20,000	50,000
(f) Housing	250,000	....	250,000
(g) Government Quarters, Suva and Country Districts	60,000	40,000	100,000
(h) New General Post Office and Customs House, Suva	100,000	....	100,000
(i) Police Headquarters, Suva	30,000	40,000	70,000
(j) Country Police Stations	25,000	25,000	50,000
(k) District Offices—			
(i) Labasa	15,000	....	15,000
(ii) Lautoka	15,000	....	15,000
(iii) Suva	15,000	....	15,000
(iv) Nadi (Revenue and Post Office) ..	2,000	....	2,000
(l) Chief's Council House, Bau	5,000	....	5,000
(m) Public Works Department Offices, Work- shops and Storage	21,500	....	21,500
(n) Development of Quarries	50,000	....	50,000
(o) Suva Town and Public Hall and Offices ..	60,000	....	60,000 ⁽³⁾
(p) Suva Public Baths Filtration Plant ..	6,000	....	6,000 ⁽⁴⁾
(q) Albert Park Pavilion	7,000	....	7,000 ⁽⁵⁾
(r) Lautoka Town and Public Hall and Offices	10,000	....	10,000 ⁽⁶⁾
	846,500	125,000	971,500

V—WATER SUPPLIES—

(a) Suva and Suva Peninsula	170,000	....	170,000
(b) Nausori Area and Lower Rewa Delta ..	75,000	35,000	110,000
(c) Lautoka, Ba and Country Districts ..	50,000	50,000	100,000
	<u>295,000</u>	<u>85,000</u>	<u>380,000</u>

VI—SEWERAGE WORKS—

(a) Suva Town	20,000	....	20,000 ⁽⁴⁾
(b) Suva Peninsula (part)	25,000	....	25,000
(c) Lautoka	11,250	....	11,250
(d) Nausori	12,000	....	12,000
(e) Labasa	7,500	....	7,500
(f) Nadi	9,000	....	9,000
(g) Ba .. ..	....	11,250	11,250
	<u>84,750</u>	<u>11,250</u>	<u>96,000</u>

VII—ELECTRIC POWER SCHEMES—

(a) Hydro-Electric Scheme Investigation ..	5,000	....	5,000
(b) Lautoka (extension)	15,000	....	15,000
(c) Ba	15,000	....	15,000
(d) Tavua	5,000	....	5,000
(e) Nausori	4,000	....	4,000
(f) Labasa	10,000	....	10,000
(g) Suva (extension)	25,000	....	25,000 ⁽⁴⁾
(h) Levuka .. ..	....	10,000	10,000
	<u>79,000</u>	<u>10,000</u>	<u>89,000</u>

VIII—PORT AND NAVIGATION FACILITIES—

(a) Suva Slipway	150,000	....	150,000
(b) Improvements to Suva Main Wharf ..	50,000	....	50,000
(c) Mooring Buoys for Oil Tankers, Suva ..	7,000	....	7,000
(d) Lautoka Wharf	90,000	30,000	120,000
(e) Subsidiary Wharves or Jetties	10,000	....	10,000
(f) Beacons and Lighthouses	3,000	....	3,000
	<u>310,000</u>	<u>30,000</u>	<u>340,000</u>

IX—TELEGRAPH AND TELEPHONE SYSTEMS—

(a) Automatic Telephone System, Suva ..	37,000	....	37,000
(b) Part Reconstruction of Trunk Line, Viti Levu	5,000	....	5,000
(c) Purchase of Carrier Equipment	8,000	....	8,000
(d) Telephone System, Labasa	2,000	....	2,000
(e) Telephone Systems, Levuka and Bau ..	1,250	....	1,250
(f) Wireless Telephones.	1,000	....	1,000
	<u>54,250</u>	<u>....</u>	<u>54,250</u>

X—ROADS AND BRIDGES, ETC.—

(a) Feeder Roads	115,000	99,000	214,000
(b) Suva-Laucala Bay Road	10,000	30,000	40,000
(c) Labasa-Dreketi Road, Vanua Levu ..	60,000	65,000	125,000
(d) Surfacing of Roads	100,000	75,000	175,000
(e) Bus Stations .. ..	....	10,000	10,000
	<u>285,000</u>	<u>279,000</u>	<u>564,000</u>

XI—GEOLOGICAL SURVEY—

(a) Five Years Programme	15,000		15,000
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XII—FISHERIES—

(a) Fresh Water Fisheries Investigations ..	1,000		1,000
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XIII—CENSUS—

(a) Census	10,000		10,000
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XIV—PUBLIC WORKS DEPARTMENT EQUIPMENT—

(a) Road and Bridge Building Plant ..	35,000		35,000
(b) Transport and Garage Equipment ..	25,000	....	25,000
(c) Tugs and Punts	22,000	....	22,000
	<u>82,000</u>	<u>....</u>	<u>82,000</u>

Totals £1,212,420 £1,904,750 £4,517,170

- (1) Including £15,000 for Suva and £5,000 for Lautoka, which will be recoverable from the Town Boards.
 (2) Including £10,000 for Suva area, part of which will be recoverable
 (3) Part recoverable from Suva Town Board.
 (4) Recoverable from Suva Town Board.
 (5) Half recoverable from Suva Town Board.
 (6) Part recoverable from Lautoka Town Board.

COMPARISON WITH THE REVISED DEVELOPMENT PLAN.

I—MEDICAL AND PUBLIC HEALTH—

- (a) *Suva Medical Centre*.—See item B. 1. The proposal to build a new hospital on a new site has been abandoned in favour of a scheme to expand the present Colonial War Memorial Hospital at a total cost of £650,000. A Colonial Development and Welfare grant of £186,702 has been made for the first part of this new scheme.
- (b) *Improvements to Regional and Provincial Hospitals*.—No provision. Up to the end of 1948 £29,255 had been spent on improvements to the Lautoka Hospital and £1,134 on the Nadi Hospital. The construction of T.B. annexes at regional and provincial hospitals will incorporate improvements to them.
- (c) *Quarantine*.—No provision. Improvements were made to the Nukulau Quarantine Station in 1947.
- (d) *Conversion of Colonial War Memorial Hospital to Public Health Centre*.—See under I (a) above.
- (e) *Public Health Centre, Lautoka*.—No provision. A building to accommodate a Health Inspector and a Child Welfare Clinic was completed in 1947.
- (f) *Improvements to Leper Hospital, Makogai*.—See item B. 5.
- (g) *Leper Sub-station, Suva*.—Completed in 1948.
- (h) *Tuberculosis Sanatorium*.—Completed in 1946 at a cost of £67,806.
- (i) *Malaria and Mosquito Control*.—Expenditure on control measures between 1943 and 1948 has been £107,033. This was covered by free grants under the Colonial Development and Welfare Acts. In 1949 expenditure was transferred to the Medical Department estimates.
- (j) *Fijian Dispensaries and Clinics*.—No provision in revised plan except for the proposals to build annexes for tuberculosis treatment at various country hospitals—see item B. 4. Between 1945 and 1948 £40,700 was spent under this heading.

II—EDUCATION—

- (a) *Teachers' Training College*.—Apart from minor installations this College at Nasinu was completed in 1947. Expenditure up to end of 1948 was £36,456.
- (b) *Queen Victoria School*.—See item B. 9.
- (c) *Indian Secondary School*.—See item B. 14.
- (d) *Indian Agricultural School*.—No provision.
- (e) *Technical School and Hostel*.—See item B. 10.
- (f) *Rural Primary Schools*.—See item B. 15.
- (g) *Urban Primary Schools*.—See item B. 15.

NOTE.—Items (a) to (g) were based on a plan recommended in 1944 by Mr. F. B. Stephens (Council Paper No. 18 of 1944). This plan was revised by a representative local committee whose report was published in 1946 (Council Paper No. 27 of 1946).

- (h) *Literacy Investigation*.—No provision.
- (i) *Overseas Education Grants*.—No provision in revised plan but grants for higher education overseas have been made from a central allocation under the Colonial Development and Welfare Act. There is also the annual award of the Fiji Scholarship, three bursaries at the Teachers' Training College, Auckland, occasional departmental scholarships and the award under the Morris, Hedstrom Limited Scholarship Fund.
- (j) *Library and Museum Building*.—No provision.
- (k) *Probation of Offenders and Treatment of Young Offenders*.—No provision.

IIIA—AGRICULTURE—

- (a) *Soil Survey*.—See item A. 10.
- (b) *Planning of Land for Settlement*.—See item A. 9.
- (c) *Public Markets*.—See item A. 16.
- (d) *Experimental Stations and Unit Farms*.—See items A. 1 to A. 4.

IIIB—FORESTRY—

- (a) *Forestry Investigations*.—See item A. 7.

IV—TOWN PLANNING AND DEVELOPMENT AND PUBLIC BUILDINGS—

- (a) *Development of Townships and Settlements*.—See item C. 17.
- (b) *Improvements to Suva Streets*.—No provision.
- (c) *Recreation Grounds*.—No provision. A loan has already been granted to the Lautoka Town Board to clear and level a recreation ground within the town area. Laucala Park, near Suva, is being developed with the assistance of sporting bodies and plans are being made for a recreation ground at Labasa.
- (d) *Nukulau Holiday Resort*.—No provision.
- (e) *Reclamation, Walu Bay area and Bau*.—See item C. 2 in revised plan. No provision made for Bau.
- (f) *Housing*.—See item B. 17.
- (g) *Government Quarters, Suva and Country Districts*.—No provision.
- (h) *New General Post Office and Customs House, Suva*.—No provision.

- (i) *Police Headquarters, Suva.*—No provision. By the end of 1948 £12,100 had been spent on a new building at Police Headquarters and on housing at Nasova and Nasese.
- (j) *Country Police Stations.*—No provision. The Nausori Police Station, which includes quarters for police officer, N.C.O's. and constables, has been completed at a cost of £16,386. In 1949 £10,244 has been provided for quarters for N.C.O's. and constables stationed at Lautoka.
- (k) (i) *District Office, Labasa*
(ii) *District Office, Lautoka* } No provision.
(iii) *District Office, Suva.*—Completed in 1946 at a cost of £5,483.
(iv) *Revenue and Post Office, Nadi.*—No provision.
- (l) *Chiefs' Council House, Bau.*—No provision.
- (m) *Public Works Department Offices, Workshops and Storage.*—No provision. By the end of 1948 £10,725 had been spent on a new District Engineer's Office and other improvements in Suva, a new depot at Sigatoka, extensions at Lautoka and quarters at Savusavu and Taveuni.
- (n) *Development of Quarries*
(o) *Suva Town and Public Hall and Offices*
(p) *Suva Public Baths and Filtration Plant*
(q) *Albert Park Pavilion*
(r) *Lautoka Town and Public Hall and Offices* } No provision.

V—WATER SUPPLIES—

- (a) *Suva and Suva Peninsula.*—See item B. 20.
- (b) *Nausori and Lower Rewa Delta.*—See item B. 19.
- (c) *Lautoka, Ba and Country Districts.*—See item B. 21.

VI—SEWERAGE WORKS—

- (a) to (g) *Suva Town and Peninsula, Lautoka, Nausori, Labasa, Nadi and Ba.*—No provision.

VII—ELECTRIC POWER SCHEMES—

- (a) *Hydro-Electric Scheme Investigation.*—See item A. 20.
- (b) *Lautoka (Extension).*—See item C. 3.
- (c) *Ba*
(d) *Tavua*
(e) *Nausori*
(f) *Labasa*
(g) *Suva (Extension)*
(h) *Levuka* } No provision.

VIII—PORT AND NAVIGATION FACILITIES—

- (a) *Suva Slipway.*—See item C. 10.
- (b) *Improvements to Suva Main Wharf.*—See item C. 7.
- (c) *Mooring Buoys for Oil Tankers, Suva.*—No provision.
- (d) *Lautoka Wharf.*—See item C. 8.
- (e) *Subsidiary Wharves or Jetties.*—See item C. 9.
- (f) *Beacons and Lighthouses.*—No provision.

IX—TELEGRAPH AND TELEPHONE SYSTEMS—

- (a) *Automatic Telephone System, Suva.*—See item C. 6.
- (b) *Part Reconstruction of Trunk Line, Viti Levu.*—See item C. 5.
- (c) *Purchase of Carrier Equipment.*—No provision. The three-channel carrier equipment in use during the war between Suva and Lautoka has been purchased at a cost of £2,250.
- (d) *Telephone System, Labasa.*—This has been completed at a cost of £3,058.
- (e) *Telephone Systems, Levuka and Bau.*—No provision.
- (f) *Wireless Telephones.*—No provision.

X—ROADS AND BRIDGES, ETC.—

- (a) *Feeder Roads.*—See item A. 15.
- (b) *Suva-Laulala Bay Road.*—No provision.
- (c) *Labasa-Dreketi Road.*—See items A.15 and C. 12.
- (d) *Surfacing of Roads.*—See item C. 13.
- (e) *Bus Stations.*—No provision. A bus terminal with a small traffic office was completed in Suva in 1948 at a cost of £2,527.

XI—GEOLOGICAL SURVEY—

- (a) See item A. 11.

XII—FISHERIES—

- (a) See item A. 8.

XIII—CENSUS—

- (a) No provision. A Census of the Colony was taken in October 1946 and a report was published in 1947 (Council Paper No. 35 of 1947). The cost of the Census was £9,440.

XIV—PUBLIC WORKS DEPARTMENT EQUIPMENT—

- (a) *Road and Bridge Building Plant.*—See items C.12 and C. 14.
- (b) *Transport and Garage Equipment.*—See item C. 14.
- (c) *Tugs and Punts.*—No provision. Four standard punts have been built at a cost of £4,339. Two sea-going barges are being built. P.W.D. tugs are being replaced as necessary with funds available under the Government Vessels Replacement Fund.

APPENDIX E.

SCHEMES LISTED OR CONSIDERED BY THE COMMITTEE BUT NOT INCLUDED IN THE REVISED PLAN.

These items are not arranged in any particular order of priority.

(N.E. = No estimate prepared.)

MEDICAL AND PUBLIC HEALTH.

Suva Health Office Extensions	£20,000
District Water Supplies (various)	74,000
Sewerage Schemes	100,000
Suva Medical Centre, Stages II and III	445,000
Makogai Leprosy Colony—Girls' School, Polynesian Quarters and Kitchen, Servants' Dining Room	5,400
Pasteurization Plant, Suva	10,000
Lautoka Hospital Laundry	25,000
Nausori Health Centre.. .. .	12,930
Lautoka Health Centre.. .. .	N.E.
Modernization of Colonial War Memorial Hospital Wards	N.E.
Quarantine Station Improvements (Nukulau)	N.E.
Improvements to Regional and Provincial Hospitals	N.E.

EDUCATION AND OTHER SOCIAL SERVICES.

Suva Museum, Library and Community Centre	250,000
Grammar School Preparatory School	4,000
Suva Girls' Grammar School on new site	12,000
Suva Boys' Grammar School on new site	N.E.
Approved Schools	N.E.
Levuka School Hostel	N.E.
Overseas Education Grants	N.E.
District Community Centres	N.E.
Recreation Grounds	N.E.
Destitute Homes, Lautoka and Labasa	N.E.

GENERAL WORKS.

District Offices at Lautoka, Labasa, Nadi, Navua and Rakiraki	N.E.
Public Buildings—General Post Office }	100,000
Customs Office	
Police Barracks and Stations	N.E.
Bus Stations	N.E.
Labasa Electricity	33,500
Reclamation Schemes, Suva and Bau	10,000
Local Air Services (Capital)	80,000
Wharves—Savusavu, Macuata, Bua and Taveuni.. .. .	15,000
Oil Wharves, Suva Harbour	80,000
Lighthouses and Beacons	N.E.
Lautoka Gaol Buildings	N.E.
Official Quarters	N.E.

APPENDIX F.

ESTIMATES OF ADDITIONAL RECURRENT EXPENDITURE AND REVENUE
RESULTING FROM RECOMMENDED SCHEMES.

Scheme	Capital Cost	On Completion of Scheme		Net Expenditure	Net Revenue
		Additional Recurrent Expenditure	Additional Recurrent Revenue		
	£	£	£	£	£
A. 1—AGRICULTURAL STATION, SOUTHERN	76,850				
*Maintenance		2,850			
Rents .. .. .		....	730		
Produce .. .. .		....	3,100	....	980
A. 2—AGRICULTURAL STATION, SIGATOKA.. .. .	13,050				
Maintenance		400	....		
Rents .. .. .		....	160		
Produce .. .. .		....	1,600	....	1,360
A. 3—AGRICULTURAL STATION, NORTHERN	2,500				
Maintenance		460	....		
Produce .. .. .		....	400	60	
A. 4—DISTRICT FARMS	8,000				
Maintenance		600	....		
Produce .. .. .		....	120	480	
A. 5—FARM INSTITUTE	5,250				
Maintenance		1,875	....	1,875	
A. 6—EXTENSIONS TO FRUIT EXPORT SHEDS	10,000				
Maintenance		100			
Fees .. .. .		....	1,000		
Savings .. .. .		....	500	....	1,400
A. 7—FORESTRY DEPARTMENT.. .. .	26,700				
Maintenance		1,910	....		
Rents .. .. .		....	100	1,810	
A. 8—FISHERIES DEVELOPMENT	5,500				
Maintenance		50	....		
Revenue .. .. .		....	50		
A. 9—AERIAL SURVEY	50,000				
Surveys		2,000	....		
Map Sales .. .. .		....	100	1,900	
A. 10—SOIL SURVEY	5,000				
A. 11—GEOLOGICAL SURVEY	24,642				
Staff		3,100	....		
Maintenance		1,100	....		
Rents .. .. .		....	192	4,008	
A. 12—NAVUA DRAINAGE PROJECT	12,000				
Maintenance		1,000	....		
Rates .. .. .		....	1,000		
A. 13—SAREA FIJIAN SETTLEMENT SCHEME	20,000				
A. 14—NADI SOIL CONSERVATION SCHEME	19,450				
Maintenance		90	....		
Rents .. .. .		....	90		
Carried forward ..	278,942	15,535	9,142	10,133	3,740

* The term Maintenance in all cases includes "Other Charges" expenditure on the service and Works Department maintenance of buildings and facilities.

Scheme	Capital Cost	On Completion of Scheme		Net Expenditure	Net Revenue
		Additional Recurrent Expenditure	Additional Recurrent Revenue		
Brought forward ..	£ 278,942	£ 15,535	£ 9,142	£ 10,133	£ 3,740
A. 15—FEEDER ROADS	445,000	18,000	....	18,000	
Maintenance					
A. 16—COUNTRY MARKETS	12,500	600	....		
Maintenance					
Fees .. .. .		....	1,350	....	750
A. 17—CENTRAL SLAUGHTER YARDS, SUVA	33,000	900	....		
Staff		1,717	....		
Maintenance .. .. .		....	2,575		
Fees .. .. .		....	1,770		
Sales .. .. .		....	50	....	1,778
Rents					
A. 18—LIME AND CORAL SAND INVESTIGATIONS	2,500				
A. 19—PRODUCTION OF GRASS SEED	5,000	300	....		
Maintenance .. .. .		....	100	200	
Sales					
A. 20—NAVUA RIVER HYDRO-ELECTRIC SCHEME	566,000	....	15,400	....	15,400
25 per cent of Net Revenue ..					
A. 21—AGRICULTURAL AND INDUSTRIAL CREDIT	150,000				
RESEARCH.					
AR. 1—BIO-CHEMICAL INVESTIGATIONS	12,500	....	100	....	100
Rent					
AR. 2—BOTANICAL INVESTIGATIONS	14,000	....	100	....	100
Rent					
AR. 3—PLANT DISEASE INVESTIGATIONS	12,500	....	100	....	100
Rent					
Total	1,531,942	37,052	30,687	28,333	21,968
B. 1—SUVA MEDICAL CENTRE—					
Medical School and Hostel ..	60,000	3,750	....		
Staff, etc.		1,200	....		
Maintenance .. .. .		....	2,500	2,450	
Contributions					
Nurses' School and Hostel ..	80,000	1,600	....	1,600	
Maintenance					
Obstetric Wing Extensions ..	15,000	2,200	....		
Staff, etc.		300	....	2,500	
Maintenance					
Out-patient's Department ..	30,000	2,000	....		
Drugs, etc.		600	....		
Maintenance .. .. .		....	350	2,250	
Fees					
Contingencies	1,702				
Furniture and Equipment ..	50,000	500	....	500	
Maintenance					
Carried forward ..	236,702	12,150	2,850	9,300	....

Scheme	Capital Cost	On Completion of Scheme		Net Expenditure	Net Revenue
		Additional Recurrent Expenditure	Additional Recurrent Revenue		
Brought forward ..	£ 236,702	£ 12,150	£ 2,850	£ 9,300	£
Preparation of Grounds ..	3,300	100	.....	100	
Maintenance					
Acquisition of Land	5,940				
B. 2—T. B. SURVEY	245,942				
	28,230				
B. 3—LAUTOKA HOSPITAL	5,600				
Staff, etc.		1,950	.....		
Fees .. ..		.....	1,000	950	
B. 4—T.B. CONTROL	20,000				
Staff, etc.		1,950	.....		
Maintenance		1,000	.....		
Fees .. ..		.....	1,000	1,950	
B. 5—MAKOGAI LEPROSY COLONY	29,200				
Maintenance		600	.....		
Rents .. ..		.....	60	540	
B. 6—CENTRAL MEDICAL SCHOOL	7,500				
Maintenance		150	.....		
Rents .. ..		.....	160	.....	10
B. 7—COLONIAL WAR MEMORIAL HOSPITAL.. ..	4,450				
Staff, etc.		2,600	.....	2,600	
B. 8—HOSPITAL LAUNDRY	26,500				
Maintenance		5,750	.....	5,750	
B. 9—QUEEN VICTORIA SCHOOL	100,000				
Maintenance		1,000	.....		
Fees .. ..		.....	1,080		
Rents .. ..		.....	300	.....	380
B. 10—COMBINED TECHNICAL CENTRES	14,000				
Staff		1,500	.....		
Maintenance		780	.....	2,280	
B. 11—INDIAN CENTRAL SCHOOLS	59,500				
Staff		5,250	.....		
Maintenance		2,450	.....		
Fees .. ..		.....	3,780	3,920	
B. 12—RATU KADAVULEVU SCHOOL—CLASSROOM BLOCK	14,000				
Maintenance		280	.....	280	
B. 13—ADI CAKOBAN SCHOOL	17,000				
Staff		815	.....		
Maintenance		2,540	.....		
Fees .. ..		.....	1,000	2,355	
B. 14—NATABUA INDIAN SECONDARY SCHOOL—EXTENSIONS	3,500				
Staff		500	.....		
Maintenance		282	.....		
Fees .. ..		.....	420	362	
B. 15—BUILDING POOL (SCHOOLS)	58,000				
Staff		10,000	.....		
Reimbursements .. ..		.....	2,500	7,500	
Carried forward ..	633,422	51,647	14,150	37,887	490

Scheme	Capital Cost	On Completion of Scheme		Net Expenditure	Net Revenue
		Additional Recurrent Expenditure	Additional Recurrent Revenue		
	£	£	£	£	£
Brought forward ..	633,422	51,647	14,150	37,887	490
B. 16—STAFF QUARTERS ..	36,000				
Maintenance ..		720	....		
Rents ..		....	762	....	42
B. 17—INDUSTRIAL HOUSING ..	80,000				
Maintenance ..		9,100	....		
Rents ..		....	2,080	7,020	
B. 18—BROADCASTING (token provision)	5,000				
B. 19—REWA WATER SUPPLY ..	63,062				
Maintenance ..		2,500	....		
Rates ..		....	4,400	....	1,900
B. 20—SUVA WATER SUPPLY ..	200,000				
Maintenance ..		2,000	....	2,000	
B. 21—GENERAL IMPROVEMENTS TO WATER SUPPLIES ..	34,929				
Maintenance ..		500	....	500	
RESEARCH.					
BR. 1—MEDICAL RESEARCH LIBRARY ..	4,051				
Maintenance ..		800	....	800	
BR. 2—LINGUISTIC RESEARCH ..	2,000				
BR. 3—EDUCATIONAL RESEARCH INSTITUTE ..	32,678				
Staff ..		3,500	....		
Maintenance ..		550	....		
Rents ..		....	230	3,820	
BR. 4—RESEARCH INTO ANEMIAS AND DENTAL DISEASE ..	480				
Total ..	1,091,622	71,317	21,622	52,027	2,332
Less Expenditure by Fiji on behalf of W.P.H.C. on Scheme B. 2, T.B. Survey	14,115	....	....	....	....
	1,077,507	71,317	21,622	52,027	2,332
C. 1—INTERNATIONAL AIRPORT (share of capital cost including land acquisition) ..	340,000				
Contribution ..		5,000	....	5,000	
C. 2—WALU BAY RECLAMATION ..	85,000				
Maintenance ..		150	....		
Rents ..		....	2,900	....	2,750
C. 3—LAUTOKA ELECTRICITY ..	28,000				
Maintenance ..		4,500	....		
Rates ..		....	7,900	....	3,400
C. 4—FITTING SHOP, SUVA ..	11,000				
Maintenance ..		280	....	280	
C. 5—DUPLICATION OF SUVA-LAUTOKA TELEPHONE LINE ..	11,000				
Maintenance ..		500	....		
Telephone Charges ..		....	2,000	....	1,500
Carried forward ..	475,000	10,430	12,900	5,280	7,650

Scheme	Capital Cost	On Completion of Scheme		Net Expenditure	Net Revenue
		Additional Recurrent Expenditure	Additional Recurrent Revenue		
Brought forward ..	£ 475,000	£ 10,430	£ 12,800	£ 5,280	£ 7,650
C. 6—AUTOMATIC TELEPHONE EXCHANGE, SUVA ..	122,000	4,710	.....	.....	2,090
Maintenance ..		.....	6,800		
Telephone Charges ..					
C. 7—SUVA PORT ACCOMMODATION ..	150,000	2,450	.....	2,200	
Maintenance ..		.....	250		
Wharfage and Fees ..					
C. 8—LAUTOKA WHARF ..	150,000	1,750	.....	250	
Maintenance ..		.....	1,500		
Wharfage and Fees ..					
C. 9—WHARF, TAILEVU COAST ..	5,000	100	.....	100	
Maintenance ..					
C. 10—SUVA SLIPWAY ..	100,000	as now	provided	.....	7,000
Maintenance ..		.....	7,000		
Fees ..					
C. 11—ROAD SURVEY UNIT ..	10,000				
C. 12—NEW ROADS ..	125,000	8,000	.....	8,000	
Maintenance ..					
C. 13—SURFACING OF ROADS ..	140,000				
C. 14—ENGINEERING SURVEYS AND PLANT ..	75,490	3,750	.....	3,750	
Maintenance ..					
C. 15—RURAL TELEPHONES say ..	15,000	670	.....	.....	480
Maintenance ..		.....	1,150		
Telephone Charges ..					
C. 16—TELECOMMUNICATIONS say ..	20,000	2,000	.....	.....	
Maintenance ..		.....	2,000		
Charges ..					
C. 17—TOWN AND TOWNSHIP WORKS say	68,000				
Total ..	1,455,490	33,860	31,500	19,580	17,220
RESERVE ..	185,061	.....	.....	.....	.....
GRAND TOTAL ..	4,250,000	142,229	83,809	99,940	41,520
NET ADDITIONAL EXPENDITURE	.....	.....	.....	58,420	.....

NOTE.—The above figure of £58,420 would be increased by £120,000 to cover loan charges on a loan of £2,000,000. The total additional recurrent expenditure will however be offset by increased indirect revenue under the headings of customs duties, trading and other licences, motor vehicle registration fees and income tax.